AIRGHANISTAN:

AVIATION AND NATION-BUILDING IN CENTRAL ASIA

BY

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The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

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The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

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ABSTRACT

This paper investigates comparative costs and benefits of making Afghanistan an air-faring nation. It argues that it is appropriate to invest the time and money to create an air infrastructure (as opposed to a more robust road or railroad network) in Afghanistan to link the different parts of the country. In assessing this information, this paper examines how the current and proposed strategies help to strengthen the country and aid in its long-term growth. While cost is an important factor in all decisions, it may not be the deciding factor. The ability of the nation of Afghanistan to support itself, provide security for its citizens, and be a productive member of the world community is the end goal.

The present status of Afghanistan illustrates the importance of the transportation infrastructure to help bring the country together physically, politically, and economically. The geography of Afghanistan and the lack of a significant road or rail network mean that Afghanistan is uniquely poised to take advantage of the air. Thirty years of war and destruction deflated the prospects of stability in Afghanistan, but the air above the country can re-inflate those hopes.

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Introduction

Victory is the beautiful, bright-colored flower. Transportation is the stem without which it could never have blossomed.

-- Winston Churchill

The United States has been fighting in Afghanistan since late 2001, and over that time the country has been in a constant state of unrest. The level of unrest has varied over the last eight years, but violence continues to increase. With the addition of troops over the years come greater costs. The continual increase in costs leads one to ask if there is a better way to use the money. While security is essential to rebuilding the nation, one must question the ratio of money spent on this function vice the other components of reconstruction. Would some of the funding be used more effectively by helping to build an infrastructure that supports the long-term growth of the country and helps to tie together the different tribal areas into one nation? This attempt at a long-term solution might be more important than securing hot spots in time for the next election.

Key to nation-building is cohesion—how well the country is tied together. The avenues that connect the important points of a country are termed internal lines of communication (LOCs).[1] They help to make a nation strong by allowing the flow of goods, services, and people throughout the country. The ability to move people and goods around a country along these LOCs is heavily dependent on the infrastructure in place that connects strategic points. If this infrastructure is adequate for the given task, the country will benefit from the service internal LOCs provide. If the infrastructure is inadequate, a country will not be able to take full advantage of its resources.

The lack of a suitable road, rail, and air infrastructure in Afghanistan makes it very difficult to conduct business outside of localized areas, and this limitation has had a great impact on the society. Afghanistan is the fifth poorest country in the world; the population faces a grossly inadequate potable water supply, soil degradation, massive

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[1] Alfred T. Mahan, *Mahan on Naval Strategy: Selections from the Writings of Rear Admiral Alfred Thayer Mahan.* ed. John B. Hattendorf (Annapolis, MD: Naval Institute Press, 1991), 142.

deforestation, and severe overgrazing of the limited arable land in the country.[2] Because of these and other factors, Afghanistan has rudimentary or non-existent basic services and functions as though it were still the 14th Century.[3] Finding a way to bring the society to modernity is a very challenging proposition. Could transportation be the battery to jump-start modernization?

Historically transportation in a country progresses using the sea, then roads, then railroads, and then the air. Normally, the progression through these transportation *media* occurs because technical development allows for the use of a different, more efficient domain. The ability to utilize a different domain aids in the growth of the country. For example, the use of covered wagons allowed some exploration of the United States, but it was not until the invention and ultimate expansion of the railroad that the United States was able to utilize more efficiently the resources in the West. The invention of the airplane and its eventual commercialization further aided in the efficiency of travel around the country and provided easier access to remote areas. In combination, all three methods of transportation (road, rail, and air) provide an effective system for moving people and goods throughout a country. They also give the central government the ability to govern the entire country because of the access they provide. Developing new infrastructure is a very expensive and time-consuming undertaking, especially for small, poor countries. Is there an alternative development process?

In the case of Afghanistan, might it be better to bypass the sequential progression from sea to road to rail to air? No navigable internal waterways exist, and the mountainous terrain makes roads and rail lines both difficult and expensive to build. The Afghan air is as navigable, however, as that of any other country. Would the use of air expand the reach of Afghan society at a quicker pace and at lower overall cost than the sequential development experienced by most countries?

There are multiple examples of countries and institutions that bypassed one form of technology in order to take advantage of one more advanced and cheaper. One example is the implementation of a cell phone infrastructure instead of that for landline phones in some developing countries. In the Democratic Republic of Congo, there are

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[2] General Barry R. McCaffrey (ret), "Visit to Kuwait and Afghanistan, 10-18 November 2009," After Action Report (West Point, NY: United States Military Academy, 5 December 2009), 7.
[3] McCaffrey, "Visit," 7.

just 10,000 fixed telephone lines but more than a million cell phone subscribers among the population of 60 million. The infrastructure needed to support mobile technology is much easier and cheaper to install in developing countries than more traditional networks common in the developed world. The installation of the newer cell phone technology allows people in these areas to leapfrog older generations of technology. The social result is the same in either case—the ability to communicate.[4]

Afghanistan is already bypassing other outmoded and inefficient communication technologies. As of March 2009, the Afghanistan Ministry of Interior (MoI) utilizes Electronic Funds Transfer (EFT) to pay members of the Afghan National Police (ANP) in all thirty-four provinces. The government is also testing a program to pay police officers using cell phone technology. The goal of EFT is to eliminate the hand-to-hand method of paying salaries that provides opportunities for corruption.[5] These examples demonstrate the capability and precedent of bypassing one form of technology for a more advanced one. Given the choice today, is it better to give someone a VCR, DVD, or DVR to record TV programming?

The choice for transportation infrastructure in Afghanistan is similar. Is the most efficient choice to develop the air infrastructure instead of road or rail networks? The government of Afghanistan, and those countries that are aiding its development, can favor the *natural* growth of capabilities in a sequential manner, or they can propel the country forward by utilizing advanced capabilities.[6] While the movement to expand the air infrastructure may not permanently bypass expansion in the other transportation areas, this bypass could aid Afghanistan for the short- to medium-term.

This paper investigates comparative costs and benefits of making Afghanistan an air-faring nation. It asks whether it is appropriate to invest the time and money to create an air infrastructure (as opposed to a more robust road or railroad network) in Afghanistan to link the different parts of the country. This paper also examines the

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[4] For more details and analysis on the Democratic Republic of Congo's implementation of cell-phone technology see Lara Farrar, "Africans Get Upwardly Mobile in Cell Phone Boom," *CNN.com*, 14 August 2008, http://www.cnn.com/2008/TECH/08/07/mobile.phone.poverty/index.html.
[5] For more information on the Afghan MoI's implementation of EFT see US Department of Defense (DOD), *Progress Toward Security and Stability in Afghanistan,* Report to Congress (Washington, DC: Department of Defense, June 2009), 38.
[6] Alfred T. Mahan, *The Influence of Seapower Upon History, 1660-1783*, 12th ed. (Boston: Little Brown and Company, 1945), 82.

country's current air infrastructure, the plans for reconstruction, and the progress of the reconstruction to help determine if making Afghanistan an air-faring nation is possible.

In order to accomplish this task, the author will examine, throughout the paper, the importance of lines of communication in strengthening a nation and show how Afghanistan lends itself to focus on air as the primary LOC. The first chapter examines the concept of nation-building and identifies the components needed for success. The second chapter examines context: geography, history, social structure, politics, resources, economy, infrastructure, and security forces of Afghanistan. The third chapter examines Afghanistan's reconstruction plan since the removal of the Taliban in 2001 by analyzing the international efforts to rebuild the country and the internal Afghan government reconstruction plans. This chapter also examines both the North Atlantic Treaty Organization's (NATO) assistance and the independent US assistance. The fourth chapter explains a possible air-faring strategy for Afghanistan, concentrating on the infrastructure, people, and money needed to accomplish the task. This chapter also provides a cost/benefit analysis for the current strategy vs. the air-faring strategy, discusses the progress made towards this endeavor so far, and proposes a relationship between the military and commercial aviation sectors to ensure success of the air strategy.

In assessing this information, this paper will examine how the current and proposed strategies help to strengthen the country and aid in its long-term growth. While cost is an important factor in all decisions, it may not be the deciding factor. The ability of the nation of Afghanistan to support itself, provide security for its citizens, and become a productive member of the world community is the end goal.

Chapter 1

Nation-building

Effective communication is vital to the success of any reconstruction program.

-- Zalmay Khalilzad, former US Ambassador to Afghanistan

A definitive description of what constitutes nation-building is difficult to ascertain. There are as many descriptions of nation-building as there are people writing about the subject. The concepts associated with this subject include peace-building, peacekeeping, peace enforcement, stability-operations, post-conflict development, and post-conflict reconstruction. The variety in the terminology of nation-building continues to expand as different authors seek to emphasize an area by using slightly different terminology. Regardless of the exact terminology used, all of the post-conflict efforts aim to secure a lasting peace. Nonetheless, understanding the different approaches experts use in describing nation-building sheds light on the task.

Concepts

Peace-building is one concept under the umbrella of nation-building. It rose to prominence with the publication of former United Nations Secretary General Boutros Boutros-Ghali's report titled *An Agenda for Peace*. Under this approach, the key concepts are preventive diplomacy, peacemaking, and peace-keeping. These concepts are graduated methods of dealing with conflict in the international community. The initial goal is to prevent disputes from arising, diffuse the situation before it spreads, and limit the spreading if the first two fail. If the prevention of conflict fails, the next step is peacemaking, which involves bringing the hostile parties together to resolve the issue diplomatically. The final option is the deployment of a UN presence in the field to attain and maintain peace. While these options utilize the UN, some countries see nation-building as a distinctly separate option.[1]

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[1] See Geoff Harris and Neryl Lewis, "Structural Violence, Positive Peace and Peacebuilding," in *Recovering from Armed Conflict in Developing Countries: An Economic and Political Analysis*, ed. Geoff Harris (New York: Routledge, 1999), 32 and Boutros Boutros-Ghali, *An Agenda for Peace: Preventive*

Some authors use the term nation-building not only as an overarching umbrella of concepts, but also as the distinctive goal. With the beginning of decolonization in the 1950s, the term nation-building became prominent in discussions to rationalize a Western-sponsored process of decolonization that favored the integration of disparate groups and communities into democracies. In effect, nation-building represented a development strategy in the economic and political context of decolonization. Europeans often criticize Americans for the use of the term nation-building because they see it as reflecting the specifically American experience of constructing a new political order in a land of new settlement without deeply rooted people, culture, and tradition. While the concept of nation-building focuses on the political process, the corollary concept of state-building focuses on the structure and functions of government.[2]

State-building is a particular approach to peace-building that recognizes that achieving security and development in societies emerging from conflicts partly depends on the existence of capable, autonomous, and legitimate governmental institutions. These institutions provide the governance necessary to provide services to the population. State-building is not synonymous with nation-building as the former focuses on public institutions, whereas the latter refers to the strengthening of a population's collective identity. What Americans typically mean by nation-building is usually state-building coupled with economic development.[3]

Understanding the concepts associated with nation-building aids in determining the appropriate tasks to accomplish in the reconstruction of war-torn countries. The circumstances of reconstruction in the recent examples of Iraq and Afghanistan, however, are profoundly different from those of most nation-building operations. Almost all of the previous examples of nation-building have evolved after civil wars, not external

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Diplomacy, Peacemaking and Peace-Keeping, A/47/277 – S/24111 (New York: United Nations, 17 June 1992), Section II.
[2] Tareq Ismael and Jacqueline Ismael, "Whither Iraq? Beyond Saddam, Sanctions and Occupation," *Third World Quarterly* 26, no. 4 (October 2005): 620-621 and Francis Fukuyama, "Nation-Building and the Failure of Institutional Memory," in *Nation-Building: Beyond Afghanistan and Iraq*, ed. Francis Fukuyama (Baltimore, MD: The Johns Hopkins University Press, 2006), 3.
[3] Roland Paris and Timothy D. Risk, "Understanding the Contradictions of Postwar Statebuilding," in *The Dilemmas of Statebuilding: Confronting the Contradictions of Postwar Peace Operations*, ed. Roland Paris and Timothy D. Risk (New York: Routledge, 2009), 1-2, & 14-15 and Fukuyama, "Nation-Building and the Failure," 3.

invasions, and were at the request of local parties seeking assistance implementing peace settlements.[4]

Nation-building has been a long-running practice of the US government, but various administrations have used different terms to differentiate their actions from those of their predecessors. Since the terrorist attacks of 11 September 2001, the concepts associated with nation-building are much closer to the efforts of US efforts overseas. These efforts mean a great deal more than they ever had before because they are essential to preventing the creation of weak regimes that harbor terrorists.[5]

Components

While the terminology of nation-building theories can be cumbersome at times as different authors apply a fine tip to their conceptual models, the overall purpose is the same—to rebuild a society. In order to rebuild a society the components needed are security, governance, commerce, and a cultural identity. Additionally, communication is the foundation of all these components. Different theories of nation-building focus on different areas, however, all rely on some form of these components to achieve their goal.

Rebuilding a war-torn society is a challenge, especially in a hostile environment. Ensuring security in a country aids in the ability of nation-building personnel, both military and civilian, to accomplish their jobs effectively. Security addresses all aspects of public safety, in particular the establishment of a safe environment and the development of legitimate and stable institutions.[6] The circumstances in a particular situation may not facilitate having a large civilian presence due to a lack of security, but one of the goals of military forces is to achieve security quickly. Security allows the government to be more effective in providing the next aspect of nation-building— governance.

Governance within a nation addresses the need for legitimate, effective political and administrative institutions.[7] Without these institutions, the state will not have the

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[4] Paris and Risk, "Understanding the Contradictions," 11.

[5] Cynthia A. Watson, *Nation-Building and Stability Operations: A Reference Handbook* (Westport, CT: Praeger Security International, 2008), 1, 22, & 25.

[6] Robert C. Orr, "The United States as Nation Builder: Facing the Challenge of Post-Conflict Reconstruction," in *Winning the Peace: An American Strategy for Post Conflict Reconstruction,* ed. Robert C. Orr (Washington, DC: The Center for Strategic and International Studies Press, 2004), 10-11.

[7] Orr, "The United States as Nation Builder," 10-11.

capacity to reap the benefits of peace and build a strong functioning nation. Delivery of services is a central element to the social contract between the state and its citizens and contributes directly to the legitimacy of the state. The citizens of the recovering state will cease to support governments that cannot or will not provide basic services, limit corrupt practices, and generate opportunity.[8] Merely having governance structures does not guarantee success in re-building a nation though. The use of these structures to stimulate further stability and growth is important. This leads to the next component of nation-building—commerce.

Commerce is important to nation-building because it provides the means for the nation to sustain itself over the long-term. This segment addresses the restoration of essential economic services, laying the foundation for viable commerce, and the initiation of a sustainable development program.[9] When the economy improves, a more stable and better-functioning state can evolve. Whether the economic re-building involves reconstruction, which assumes that there was a well-functioning economy prior to the hostilities undermining it, or development, which is the building of a modern economy where none previously existed, is not as important as the fact that economic re-building occurs.[10] Getting the economy going following conflict is important for stability-operations. Many elements of economic recovery tie directly to rebuilding infrastructure. They include expeditious transportation of resources and goods, effective communication of knowledge, secure supplies of power, adequate human capital, innovative capacity, supportive legal and financial institutions, and the accumulation of capital and capital goods.[11] The sustainment of a nation depends not only on commerce but also on the ability of the population to identify itself as one.

Having a national cultural identity is necessary for successful nation-building. This does not mean, however, that the people of a nation have to be a homogeneous group. The diversity within the culture is important to the character of the nation as a whole. The cultural identity needed for nation-building is one where the population

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[8] Derick W. Brinkerhoff, Ronald W. Johnson, and Richard Hill, *Guide to Rebuilding Public Sector Services in Stability Operations: A Role for the Military* (Carlisle, PA: Strategic Studies Institute, 2009), 2-6.
[9] Orr, "The United States as Nation Builder," 10-11.
[10] Amitai Etzioni, "A Self-Restrained Approach to Nation-Building by Foreign Powers," *International Affairs* 80, no. 1 (January 2004): 2-3.
[11] Etzoni, "A Self-Restrained Approach," 10.

accepts that they are one group with a common identity. While this is a challenging concept, especially in countries with strong ethnic cultures and limited exposure to other regions, it is not impossible. The other components of nation-building (security, governance, and commerce) provide a means for the development of a unified cultural identity that can guide the nation as it moves forward from war.

Communication

Underlying the four components of nation-building is communication. Historically, lines of communication (LOCs) are associated predominantly with a country's external capabilities, especially vis-à-vis movement on the sea. External LOCs are the means that a country utilizes to trade with other countries around the world. This tendency to trade typically requires a naval force to ensure the sea LOCs are secure. The naval theorist Alfred Thayer Mahan believed that the tendency to trade is the one national characteristic that is most important to the development of sea power.[12] This trade is also a driving force in a country's economic well being, especially if her natural resources are limited. The ability of a country to benefit from the people and resources of another country, while also providing benefit to others with its goods, provides great national strength. Mahan assumed, however, that a nation already had effective *internal* LOCs to support the nation.

The ability of a nation to successfully secure and utilize internal LOCs provides a strong indication as to the strength of the nation as a whole. Providing for the safe and rapid flow of assets between various locations within a nation is important to demonstrating this strength. The geography of a country may be conducive to a specific method for securing LOCs to ensure their successful use. The geographical position of a country may also tend to promote either the concentration or dispersion of transportation support mechanisms in order to take full advantage of their capabilities. Failure to effectively utilize an appropriate method of employment along LOCs may actually provide less security to a country overall and make it powerless in the world arena.[13]

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[12] Alfred T. Mahan, *The Influence of Seapower Upon History, 1660-1783*, 12th ed. (Boston: Little Brown and Company, 1945), 53.
[13] Mahan, *The Influence of Seapower*, 29, 40, & 150.

All government organizations, especially those away from the seat of national power, are ultimately dependent upon open communication with the national government.[14] Without this ability to communicate effectively, the distributed government organizations will be at a great disadvantage as a given situation changes over time. These organizations will become, in effect, independent organizations that will have to depend on their best judgment for courses of action, as opposed to being an effective extension of the national government. Ensuring effective LOCs after a conflict is an especially challenging endeavor.

Often in the aftermath of war, the physical infrastructure of the nation is in need of repair. Whether due to destruction from conflict or from a prolonged lack of maintenance, the country's infrastructure may no longer be able to support the communication needs the fledgling government requires for self-sustainment. Therefore, a rapid infrastructure reconstruction effort becomes key to nation-building by significantly boosting the economy through providing access to markets, employment, and services that promote social economic development. Successful reconstruction of infrastructure does not guarantee the prevention of deadly conflict, but without reliable infrastructure that connects the community, the sustainment of long-lasting peace is not possible.[15]

Summary

There are myriad descriptions of what constitutes nation-building. The varied terminology serves to highlight a particular author's view of important concepts. Whether the concept is identified as nation-building, peace-building, stability-operations, or reconstruction and development, the goal is the same—a viable nation that is stable and productive in the world arena. In order to rebuild a society the components needed are security, governance, commerce, and a cultural identity. Underlying these four areas is communication. Effective communication depends heavily on the infrastructure in place at the end of hostilities. Rebuilding this infrastructure is important to ensuring the nation can function. A closer look at Afghanistan reveals the need for reconstruction of

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[14] Alfred T. Mahan, *Mahan on Naval Strategy: Selections from the Writings of Rear Admiral Alfred Thayer Mahan.* ed. John B. Hattendorf (Annapolis, MD: Naval Institute Press, 1991), 145.
[15] Garland H. Williams, *Post Conflict Reconstruction: On the Critical Path to Long-Term Peace* (Carlisle, PA: US Army War College, 2003), 7.

transportation infrastructure and how aviation can play a large role in the effort of rebuilding the country as a whole and the economy in particular.

Chapter 2

A Short Description of Afghanistan

Today's problems are the result of yesterday's solutions.

-- John F. Kennedy

Geography

The geography of Afghanistan plays an important role in the history and future of the country. As Figure 1 illustrates, Afghanistan is located in Central Asia—north and west of Pakistan, east of Iran, and south of Turkmenistan, Uzbekistan, and Tajikistan. The narrow Wakhan Corridor extends from the northeastern part of Afghanistan to meet the western part of China.

Figure 1: Relief Map of Afghanistan (Source: Perry-Castañeda Library Map Collection, University of Texas)[1]

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[1] Perry-Castañeda Library Map Collection, "Afghanistan: Shaded Relief Map (2008)," University of Texas at Austin, http://www.lib.utexas.edu/maps/middle_east_and_asia/txu-oclc-310605662-afghanistan_rel_2008.jpg. (Accessed 22 February 2010).

Afghanistan occupies approximately 25,000 square miles, slightly less than the state of Texas.[2]

The Pre-Islamic Period

Archaeological evidence indicates that urban civilization began in the region of Afghanistan between 3000 and 2000 BC. Afghanistan first appeared in recorded history as part of the Achaemenid Empire in the sixth century BC. In the late fourth century BC, Alexander the Great defeated the Achaemenian emperor Darius III and overcame local resistance in the territory that is now Afghanistan. Alexander's successors, the Seleucids, continued to saturate the region with Greek cultural influence. The Mauryan Empire of India gained control of southern Afghanistan shortly after the Seleucids, bringing with it Buddhism. In the mid-third century BC, the nomadic Kushans established an empire that became a cultural and commercial center for the region. From the end of the Kushan Empire in the third century AD until the seventh century, the region was fragmented and under the protection of the Sassanian Empire of Iran.[3]

The Islamic and Mongol Conquests

After defeating the Sassanians in 637, Arab Muslims began a 100-year process of conquering Afghan tribes and introducing Islam. By the tenth century, the rule of the Arab Abbasid Dynasty and its successor, the Samanid Dynasty, had crumbled. Subsequently, the Ghaznavid Dynasty, which was a branch of the Samanids, became the first great Islamic dynasty to rule in Afghanistan. In 1220, all of Central Asia fell to the Mongol forces of Genghis Khan. Afghanistan remained fragmented until the 1380s when Timur consolidated and expanded the existing Mongol Empire, setting up rule in Afghanistan by him and his descendents until the early sixteenth century.[4]

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[2] Library of Congress – Federal Research Division, "Country Profile: Afghanistan," Library of Congress, http://lcweb2.loc.gov/frd/cs/profiles/Afghanistan.pdf (accessed 18 November 2009), 4.
[3] Library of Congress, 1-2 and Martin Ewans, "Afghanistan: History," in *South Asia 2007*, 4th ed. (London: Europa Publications, 2007), 69.
[4] Library of Congress, "Country Profile: Afghanistan," 2.

The Pashtun Rulers

From the sixteenth century, the Persian Safavid Dynasty and the Mughals of northern India vied for supremacy in Afghanistan. With the death of Nadir Shah, the great Safavi leader, in 1747, indigenous Pashtuns, later known as the Durrani, began a period of rule in Afghanistan that lasted until 1978. The first Durrani ruler, Ahmad Shah, united Pashtun tribes across the region, building an empire that extended to Delhi and the Arabian Sea by 1760. Afghans view Ahmad Shah as the founder of the Afghan nation, although he was more the leader of a tribal confederation than that of a nation-state. The empire fragmented after Ahmad's death in 1772, but in 1826 Dost Mohammad, the leader of the Pashtun Muhammadzai tribe, finally restored order.[5]

The Great Game

Dost Mohammad ruled at the beginning of the *Great Game*, which was a century-long contest for domination of Central Asia and Afghanistan between an expanding Russia and an India-protective Britain. During this period, Afghan rulers were able to maintain virtual independence, although some compromises were necessary. In the First Anglo-Afghan War, 1839-42, the British deposed Dost Mohammad, but they abandoned their Afghan garrisons shortly after the conflict. In the subsequent decades, Russian forces approached the northern border of Afghanistan, and the British invaded and held most of Afghanistan in the Second Anglo-Afghan War in 1878. In 1880, Abdur Rahman, a Durrani, began a 21-year reign of power that saw the balancing of British and Russian interests, the consolidation of Afghan tribes, and the reorganization of civil administration into what many consider the modern Afghan state. During this period (in 1893), the British secured the Durand Line dividing Afghanistan from British colonial territory to the southeast and sowing the seeds of future tensions over the division of Pashtun tribes. Abdur Rahman's son Habibullah, who ruled from 1901-19, continued the administrative reforms of his father and maintained Afghanistan's neutrality in World War I. It was during Habibullah's reign that the first stirrings of nationalism and independence began to appear in Afghanistan, eventually resulting in his assassination.[6]

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[5] Ewans, "Afghanistan: History," 69 and Library of Congress, "Country Profile: Afghanistan," 2.
[6] Library of Congress, "Country Profile: Afghanistan," 2 and Ewans, "Afghanistan: History," 70-1.

Full Independence and Soviet Occupation

After succeeding his father, Amanullah proclaimed Afghan independence and declared war on the British. He chose the timing well as the British were war weary and much of the Indian army was overseas. One month into the war, Amanullah sued for peace resulting in the Treaty of Rawalpindi, which ended the Third Anglo-Afghan War and granted Afghanistan full independence. After this success, Amanullah turned his attention to modernization within Afghanistan and introduced his country's first constitution in 1923. Resistance to his domestic-reform program forced him to abdicate in 1929. Anarchy followed until 1933 when Amanullah's nephew, Mahammad Zahir Shah, the last king of Afghanistan, began his 40-year reign.[7]

After World War II, in which Afghanistan remained neutral, the long-standing division of the Pashtun tribes caused tensions when the division was formalized, without Afghan input, with the creation of Pakistan on the other side of the Durand Line in 1948. Because of the tension and petroleum blockade between Afghanistan and Pakistan, the Afghans turned to the Soviet Union for trade. The Afghan government was also anxious to achieve some worthwhile development in the post-war era and approached the US government for help, but the US was not interested. Prime Minister Mohammad Daoud of Afghanistan, the king's cousin, was a cautious reformer who modernized and centralized the government while strengthening ties with the Soviet Union. In 1963, however, Zahir Shah dismissed Daoud because his anti-Pakistan policy damaged Afghanistan's economy.[8]

A new constitution, ratified in 1964, liberalized the constitutional monarchy and reformed the national government into a more democratic structure. In the ensuing decade, economic and political conditions worsened, however, and in 1973 Daoud overthrew the king and established a republic. When economic conditions failed to improve and Daoud lost most of his political support, communist factions overthrew him in 1978. In 1979, the threat of a tribal insurgency against the communist government triggered an invasion by 80,000 Soviet troops to shore up the puppet communist regime. During the Soviet occupation, armed Afghan resistance groups, known as the mujahedin,

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[7] Ewans, "Afghanistan: History," 71 and Library of Congress, "Country Profile: Afghanistan," 2-3.
[8] Ewans, "Afghanistan: History," 71 and Library of Congress, "Country Profile: Afghanistan," 3.

waged war against the Soviet forces and the Afghan security forces that supported them. During the resistance, the US government, through the Central Intelligence Agency, provided covert assistance to the mujahedin through Pakistan. Between 1979 and 1989, two Soviet-sponsored regimes failed to defeat the mujahedin; and in 1988, the Soviet Union finally agreed to create a neutral Afghan state. In 1989, Soviet forces left Afghanistan ending a war that killed thousands, devastated industry and agriculture, and created five to six million refugees.[9]

Civil War and the Taliban

The 1988 Soviet withdrawal agreement did not settle the differences between the government and the mujahedin; and in 1992, after the fall of the Soviet-backed Afghan regime, Afghanistan descended into a civil war that further ravaged the economy. Despite several temporary alliances between the warring factions, major struggles continued until the Islamic fundamentalist group, the Taliban, gained control of most of the country in 1996. The Taliban used an extremist interpretation of Islam to assert repressive control of the society, keeping the economy in ruins and ceasing most formal government services. Throughout its tenure, the Taliban faced armed opposition from the Northern Alliance, a loose network dominated by ethnic Tajiks and Uzbeks from northern Afghanistan, in a continued civil war. The key legacies of Afghanistan's years of civil war, conflict, and oppressive rule include the deaths of over one million people, the displacement of millions more, the proliferation of weapons, and the destruction of key institutions and infrastructure. Nonetheless, this troubled history combines with the Islamic religion to form the bones of a cultural identity.[10]

The start of the fall of the Taliban is commonly traced back to when the regime granted the Arab terrorist organization al Qaeda the right to use Afghanistan as a base of operations. As al Qaeda committed a series of international terrorist acts culminating in the 11 September 2001 attacks on the United States, the Taliban rejected international pressure to expel the radical group and surrender the organization's leader Osama bin Laden. On 7 October 2001, following the refusal of the Taliban regime to cease

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[9] Library of Congress, "Country Profile: Afghanistan," 3; Ewans, "Afghanistan: History," 71-72; and Catherine Dale, *War in Afghanistan: Strategy, Military Operations, and Issues for Congress,* CRS Report for Congress, R40156 (Washington, DC: Congressional Research Service, 2009), 5.

[10] Library of Congress, "Country Profile: Afghanistan," 3 and Dale, *War in Afghanistan*, 5.

harboring al Qaeda, the US Government launched military operations in Afghanistan to disrupt the use of Afghanistan as a terrorist base and to topple the Taliban regime. Military victory, including the demise of the Taliban regime, came quickly. In November 2001, the Taliban fled Kabul, and in December 2001, they left their stronghold of Kandahar. Although the regime fell, the Taliban and al Qaeda leadership escaped capture. Hence, one of the objectives in building the Afghan nation is to establish a cultural identity sharply divergent from Taliban ideology. Communicating this identity to the vast majority of the population is job one on the national agenda.[11]

Demographics and Development Indicators

Afghanistan's population, estimated at over 31 million in 2007, is ethnically and linguistically diverse. A large portion of the population is relatively young with almost half under the age of 15. Afghanistan's largest ethnic groups, as of 2007, include the Pashtun (42 percent), Tajik (27 percent), Hazara (9 percent), Uzbek (8 percent), Aimak (4 percent), and Turkmen (3 percent). Although some ethnic groups are predominant in specific regions of Afghanistan, such as the Pashtuns along the Pakistan border, multiple ethnic groups populate many regions. The people of Afghanistan collectively speak over 30 languages, but most of the population speaks either Dari/Persian (46 percent) or Pashtu (42 percent). Islam is the predominant religion with a large portion of the population being Sunni (80 percent) and a smaller portion being Shi'a. Afghanistan is essentially a rural society with less than 15 percent of the population living in urban areas. Agriculture forms the largest economic sector, accounting for 53 percent of the legal production and 67 percent of the labor force.[12]

The development indicators published by the World Bank and the United Nations (UN) rank Afghanistan at the bottom of nearly every category. Some examples of

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[11] Library of Congress, "Country Profile: Afghanistan," 3; Dale, *War in Afghanistan*, 6; and Ali A. Jalali, "The Legacy of War and the Challenge of Peace Building," in *Building a New Afghanistan*, ed. Robert I. Rotberg (Cambridge, Mass: World Peace Foundation; Washington, DC: Brookings Institution Press, 2007), 23.
[12] For social demographics, see US Government Accountability Office (GAO), *Securing, Stabilizing, and Reconstructing Afghanistan: Key Issues for Congressional Oversight*, Report to Congressional Committees, GAO-07-801SP (Washington, DC: Government Accountability Office, 2007), 10. For population distribution economic analysis, see Alastair J. McKechnie, "Rebuilding a Robust Afghan Economy," in *Building a New Afghanistan*, ed. Robert I. Rotberg (Cambridge, Mass: World Peace Foundation; Washington, DC: Brookings Institution Press, 2007), 112-3.

deficient indicators include life expectancy, infant mortality, per capita income, and literacy rates. Life expectancy at birth for Afghans is 43 years. More than 20 percent of all Afghan children die before the age of five and nearly a third of those die soon after birth. The per capita income for Afghanistan was $200 per year in 2007, excluding income from illicit drug production and trafficking. The population is mostly uneducated, and over 70 percent of Afghan adults are illiterate. The low rate of literacy suggests that printed material may not be the best method of communicating cultural identity.[13]

Politics

The country of Afghanistan remains largely divided along cultural, tribal, ethnic, and religious lines. The view of the central government is somewhat suspect because of the social structure of the country. The basic social unit is the qawm which is a flexible term defining a community bound by interacting obligations of protection. Throughout Pashtun history, the qawm has been the focal point of allegiance; and as such, the Pashtuns have always considered the state to be something external and often hostile to their interests.[14]

The legitimacy and view of the national government varies with the distance an individual or tribe is from Kabul. The people in or near Kabul see the national government as legitimate based on legal authority. This legal authority rests on the belief in the legality of patterns or rules and the right of those elevated to authority under those rules to issue commands to the people in the country.[15] Part of this legitimacy is due to the population seeing the national government as having the ability to influence their actions and lives. Those people further away from Kabul do not have the same view of the national government.

Away from Kabul, Qawm and tribalism fill the role of protection and support traditionally assigned to a national government. The legitimacy of these social structures comes from one of two sources. The first source of legitimacy is from traditional grounds resting on an established belief in the sanctity of traditions and the legitimacy of

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[13] GAO, *Securing,* 10.

[14] Ewans, "Afghanistan: History," 68-9.

[15] Max Weber, *The Theory of Social and Economic Organization,* trans. A. M. Henderson and Talcott Parsons, ed. Talcott Parsons (New York: The Free Press, 1947), 328.

those exercising authority. In this case, obedience is to the person who occupies the traditionally sanctioned position of authority, which is usually a tribal elder. The second source of legitimacy for these people is from charismatic grounds resting on devotion to the sanctity, heroism, or exemplary character of an individual person. In this case, the people obey charismatic leaders based on virtue of personal trust and revelation in them instead of the position they hold.[16] The legitimacy of both of these sources helps individuals to fulfill the same purpose of the national government—to protect the population. Communicating an ethos of protection and provision is a central task in creating legitimacy in governance.

Natural Resources

Resource limitations pose large constraints on the development of Afghanistan into a productive society. Afghanistan does not have vast known natural resources to provide a means for generating wealth. Unlike some of the other countries in the region, Afghanistan does not produce oil or have substantial known reserves. The only real resources the country has are its people and land, although much of the land is very mountainous. Three-fourths of the land of the country supports only sparse grazing due to mountains and deserts, and only 12 percent is arable, although a 4-year drought in the early 2000s cut that figure in half. In 2007, permanent crops were planted on only 0.2 percent of the total. The country has limited access to fresh water, so a mere 5 percent of the land area, mainly in the irrigated valleys, produces 85 percent of the overall agricultural output.[17]

There are many environmental issues because of geography and lack of natural resources to sustain the population. Instead of using a form of fossil fuel, much of the population relies on wood, which has led to rapid deforestation and soil degradation.[18] In addition, much of the country is prone to damaging natural hazards including earthquakes, flooding, drought, and impassable amounts of snow during the winter.[19] These environmental issues combine to make the job of the national government very

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[16] For detailed descriptions and analysis on sources of legitimacy, see Weber, *Theory of Social ,* 328.
[17] For more information on resource limitations, see GAO, *Securing,* 10-11. For more information on land-use, see Library of Congress, "Country Profile: Afghanistan," 5 and Edward Girardet and Jonathan Walter, *Afghanistan,* 2nd ed. (Geneva: Crosslines, 2004), 139.
[18] GAO, *Securing,* 11.
[19] GAO, *Securing,* 11.

challenging. The national government has not been able to implement successful remedial programs due to the reach of its powers. This also plays a role in the economics of the country.

Economy

The economic/industrial base of Afghanistan has always been minimal and largely associated with agricultural processing, carpet manufacturing, and the production of dried fruits.[20] Traditionally, agriculture has been the foundation of Afghanistan's economy, employing approximately 80 percent of the workforce and contributing at least half of the country's gross domestic product.[21] Despite these numbers, the country's agrarian-based subsistence economy is not even capable of meeting the basic requirements of Afghans, forcing the population to survive extensively instead on foreign-donated food.[22] Other elements that support the economy of Afghanistan are locally based.

A 2004 government budget report noted that, apart from agriculture, the Afghan economy depends heavily on small-scale enterprises, primarily at the household level.[23] Much of the commercial activity in Afghanistan focuses on local markets as opposed to other formal regional or national structures.[24] A challenge for the nation is linking these local markets to allow the goods to flow among different parts of the country. The commercial connections linking these local centers together remain largely undeveloped.[25] Linking these local markets would aid the economic prospects of the country.

The economic prospects for Afghanistan depend heavily on the country's ability to fund improvements in basic services. Since the overthrow of the Taliban regime in 2001, Afghanistan's long-term economic prospects have improved some, but the situation

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[20] Peter Marsden, "Afghanistan: Economy," in *South Asia 2007*, 4th ed. (London: Europa Publications, 2007), 80.
[21] Library of Congress, "Country Profile: Afghanistan," 9.
[22] Jane's Information Group, *Jane's Sentinel Country Risk Assessment: South Asia*, Issue 21 (Alexandria, VA: Jane's Information Group Limited, 2008), 72.
[23] Marsden, "Afghanistan: Economy," 84.
[24] Hedayat Amin Arsala, "Revitalizing Afghanistan's Economy: The Government's Plan," in *Building a New Afghanistan*, ed. Robert I. Rotberg (Cambridge, Mass: World Peace Foundation; Washington, DC: Brookings Institution Press, 2007), 137-8.
[25] Arsala, "Revitalizing Afghanistan's Economy," 138.

remains dire. On paper, Afghanistan's economy is growing rapidly, with the legal economy expanding by 13.8 percent in 2005. This growth, however, marks a rebound from an extremely low base following the Soviet devastation from the 1980s onward.[26] Growth rates will hopefully continue to remain steady or rise as years of rebuilding finally bear fruit. While some numbers appear promising, there is another aspect of the economy that hinders overall progress.

The black economy of Afghanistan has become a drain on the advancement of the country in terms of both governance and finance. In the absence of a functioning formal economy to provide employment and income for Afghans, the black market has become the dominant employer for a large portion of the population. The weakness of the national government, a poor economic situation, the prevalence of warlords and insurgents, the involvement of corrupt government officials, and the massive amount of money to be made have combined to make the drug industry highly attractive. The illicit drug trade provides some benefits to various portions of the population. It provides the warlords with ample funds, allowing them to maintain their independence from the national government. The drug trade also provides a source of funds for insurgents in a growing number of regions in the southern and eastern portions of the country. It also provides a source of dependable income for those who grow and process the poppy. After several years of drought, a crop that does not require much water is particularly attractive to farmers who would otherwise grow something else. In fact, polls suggest that most Afghans would prefer not to grow poppies, but they see no viable alternative at this time.[27]

Infrastructure

For a mountainous, landlocked country like Afghanistan, internal transportation is vital for domestic and international trade, to facilitate national integration, and to avoid supply bottlenecks that create inflation.[28] A large portion of the national road system that

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[26] For more analysis on Afghanistan's economic growth and prospects, see Jane's, *Jane's Sentinel* , 6 and 72.

[27] For more information and analysis on the black market and its implications, see Jane's, *Jane's Sentinel* , 4 and 72. For more discussion about the plight of the farmers, see Ewans, "Afghanistan: History," 79.

[28] "Afghanistan: Preliminary Needs Assessment for Recovery and Reconstruction," Report to the Steering Committee of Donor Governments (Asian Development Bank, United Nations Development Program, and The World Bank, January 2002), 36.

connects the country of Afghanistan, the ring road, and the connecting roads to neighboring countries was constructed in the 1960s and 1970s.[29] The Soviets highlighted the importance of the road network when much of their combat in Afghanistan was devoted to fighting for and providing security for the road network. This heavy requirement plus the need to guard airfields, cities, and base camps meant that over 75 percent of the Soviet combat forces were routinely involved in security missions instead of actively fighting the mujahedin. As a result, the war soon devolved into a fight for control the limited lines of communication—the road network that connected the cities of Afghanistan to each other, to Pakistan, and to the Soviet Union.[30]

The fighting for control played a major part in the decade-long Soviet Army occupation, resulting in the devastation of many rural areas.[31] To the embarrassment and shame of many Afghans, however, it was not the Soviets but the civil war of the 1990s that inflicted the greatest damage on Kabul and other Afghan cities.[32] Along with the damage to the cities, the road network was largely destroyed during three decades of war and political strife.[33] Significant numbers of bridges and causeways were damaged or destroyed as well.[34] In addition, between 1991 and 2001, virtually no road construction, maintenance, or rehabilitation was carried out, resulting in a national road network in poor condition.[35] For example, 80 miles of the 141-mile Torkham—Jalalabad—Kabul road, which is crucial for both trade and relief shipments, was so seriously damaged that in 2002 it took four days for a truck to make a return trip between Peshawar and Kabul, a journey that previously took less than a day.[36] In 2008, the Afghanistan government assessed approximately 85 percent of the total 81,000-mile road network in Afghanistan as significantly degraded, with a major portion not passable by motor vehicles. Of this number, 27,000 miles are national, regional, urban, and provincial roads and 54,000 miles

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[29] *Afghanistan National Development Strategy (ANDS): 1387-1391 (2008-2013)* (Kabul: Government of the Islamic Republic of Afghanistan, 2008), 95.

[30] For more discussion on the Soviet experiences vis-à-vis securing the Afghan road network, see Lester W. Grau, *Road Warriors of the Hindu Kush: The Battle for the Lines of Communication in the Soviet-Afghan War* (Fort Leavenworth, KS: Foreign Military Studies Office, 1995), iii and 1.

[31] Girardet and Walter, *Afghanistan,* 199.

[32] Girardet and Walter, *Afghanistan,* 199.

[33] *ANDS*, 95.

[34] "Afghanistan: Preliminary Needs," 34.

[35] *Transport and Civil Aviation Strategy: 1387-1391*, *Afghanistan National Development Strategy* (Kabul: Government of the Islamic Republic of Afghanistan, 2008), 15 and "Afghanistan: Preliminary Needs," 34.

[36] "Afghanistan: Preliminary Needs," 34.

are rural roads.[37] The poor condition of the road system is not Afghanistan's only infrastructure shortcoming.

The first railway tracks appeared in Afghanistan in 1982 with the completion, after three years of work by the Afghans and Soviets, of a one-half mile combined rail and road bridge over the Amu Darya River, the border with the Soviet Union (now Uzbekistan).[38] Afghanistan has no internal rail links, but relies on railheads in neighboring countries for trade.[39]

Civil aviation has always been an important transportation mode in Afghanistan because of the country's size and geography.[40] In 2007, Afghanistan had 46 airports in operation with 12 paved runways, but only four had runways longer than 9,800 feet (3,000 meters).[41] A limited number of these airports are available for commercial use and all are in need of infrastructure improvements.[42] All Afghan airports and air infrastructure require an overhaul and modernization, as none of the civil air services meet the international standards and practices required by ICAO and IATA.[43]

Security Forces

The Afghanistan National Security Force (ANSF) is comprised of the Afghan National Army (ANA) and the Afghan National Police (ANP). The ANA is subordinate to the Minister of Defense (MoD) and has five regional corps and one air corps. Each corps is divided into brigades compromised of three infantry kandaks (or battalion), one combat support kandak, and one combat service support kandak. The commando kandaks fall under the tactical control of the regional corps. The Afghan National Army Air Corps (ANAAC), effectively Afghanistan's air force, is organizationally the sixth corps of the ANA.[44]

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[37]For details on road network makeup, see *ANDS*, 96.

[38] Jane's, *Jane's* Sentinel, 33.

[39] *ANDS*, 96.

[40] "Afghanistan: Preliminary Needs," 36.

[41] Library of Congress, "Country Profile: Afghanistan," 14.

[42] *ANDS*, 96.

[43] Jane's, *Jane's Sentinel,* 33 and *ANDS*, 96.

[44] For detailed information on the Afghan National Army structure, see US Department of Defense, *Progress Toward Security and Stability in Afghanistan.* Report to Congress (Washington, DC: Department of Defense, January 2009), 29 and Dale, *War in Afghanistan,* 38.

Afghanistan has an independent air force tradition dating back to 1924. By the 1980s, after several periods of substantial Soviet assistance, Afghanistan had built a rather formidable air force. During the Taliban era, Pakistan assumed a foreign patronage role for the Afghan air force. The war to oust the Taliban in 2001 brought the destruction of most of the Afghan air fleet. The current Afghan National Army Air Corps is a carryover from the Afghan Air Force that existed prior to the Soviet invasion. Years of flying experience left the Afghans some human capital to draw on in building a post-Taliban air force, although the current average age of its pilots, 44.7 years, is approximately the average life expectancy for Afghan males.[45]

Members of the Afghan National Police comprise Afghanistan's civilian security forces and fall under the Ministry of the Interior. The ANP includes several distinct forces—the Afghan Uniform Police, responsible for general policing; the Afghan National Civil Order Police, a specialized group that provides quick-reaction forces; the Afghan Border Police, which provides law enforcement at Afghanistan's borders and entry points; and the Counternarcotics Police of Afghanistan, who provide law enforcement support for reducing narcotics production and distribution.[46]

Summary

The people of Afghanistan have seen much turmoil in their history. Stability has been an elusive concept as numerous empires, monarchies, and tribes have wrestled for control of the country and its key location as a transit point between Europe and the Far East. The struggle for stability has been hindered from both external and internal entities. The country has seen stability and prosperity when its economic needs were met by the government, and instability when those needs were not met. External influences added to instability as outside entities forced their will upon the Afghan people.

Instability and turmoil due to war in the country has hindered progress. Development indicators illustrate the lack of attention to the welfare of the people. This is in part due to the historical lack of a strong national government to address these issues. The division of the country along tribal, ethnic, and religious lines challenges the

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[45] Dale, *War in Afghanistan*, 38 and Katzman, Kenneth, *Afghanistan Post-Taliban: Governance, Security, and U.S. Policy*, CRS Report for Congress, RL30588 (Washington, DC: Congressional Research Service, 2009), 42.
[46] For detailed information on the Afghan National Police structure, see Dale, *War in Afghanistan*, 39.

national government's ability to govern effectively. The lack of an infrastructure that gives the national government access to all parts of the country adds to the difficulties. People who live outside the Kabul area do not really feel the presence of the national government but instead depend on local governance (both formal and informal). Many Afghans, therefore, see the national government as irrelevant. A weak economic base adds to the instability of the country as a whole.

The lack of significant natural resources and industrial facilities has historically made Afghanistan a predominantly agriculture-based economy. This agriculture was once prosperous, but the destruction and/or lack of maintenance of the support infrastructure during the last thirty years of war ended this prosperity. The economic prospects for Afghanistan depend heavily on the country's ability to fund the needed improvements in basic services. In the absence of a functioning formal economy to provide employment and income for Afghans, the black market has become the dominant employment mechanism for a large portion of the population. A weak security force makes it difficult for the national government to stop the expansion of the black economy. There is hope for the country though.

The factors that describe the present status of Afghanistan illustrate the importance of a communication and transportation infrastructure to help bring the country together physically, politically, and economically if it is to move forward. The geography of Afghanistan and the lack of a significant road or rail network mean that Afghanistan is uniquely poised to take advantage of the air. Thirty years of war and destruction deflated the prospects of stability in Afghanistan, but the air above the country can re-inflate those hopes.

Chapter 3

Afghanistan Reconstruction Plan

True peace will only be achieved when we give the Afghan people the means to achieve their own aspirations.

-- George W. Bush, 17 April 2002

International Support for Afghanistan

The fall of the Taliban at the end of 2001 marked the end of a protracted civil war in Afghanistan and the beginning of the recovery and healing process. This process also opened the way for Afghanistan to free itself from the extremism and international isolation that prevailed under the Taliban. Securing Afghanistan's future requires a long-term commitment by the international community, with a clear vision of making Afghanistan a self-supporting country. [1] Since late 2001, the international community has taken great steps to help Afghanistan along its journey toward becoming a productive member of the international community. Over the years, numerous international meetings, pledge conferences, and agreements have provided support for rebuilding efforts.

In late 2001, as the military victories in Afghanistan outpaced political arrangements, the international community rushed to broker the formation of a broad-based Afghan government that the country's diverse groups would support. [2] This desire resulted in the first convention, known as the Bonn Conference. Afghans met under UN auspices to decide on a plan for governing their country. Participants included representatives from four Afghan opposition groups and observers from neighboring and other key countries, including the United States. [3] The military situation on the ground at that time in the country strongly influenced the negotiations between the four Afghan

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[1] For more analysis on the fall of the Taliban and future implications, see Ali A. Jalali, "The Legacy of War and the Challenge of Peace Building," in *Building a New Afghanistan*, ed. Robert I. Rotberg (Cambridge, Mass: World Peace Foundation; Washington, DC: Brookings Institution Press, 2007), 23 and 29.

[2] Jalali, "The Legacy of War," 29.

[3] Catherine Dale, *War in Afghanistan: Strategy, Military Operations, and Issues for Congress,* CRS Report for Congress, R40156 (Washington, DC: Congressional Research Service, 2009), 6.

political-ethnic groups on the structure of the new government.[4] Having gained control of the major cities in Afghanistan, the Northern Alliance showed little flexibility in sharing power with other groups.[5] Despite these feelings of inflexibility, the parties eventually reached an agreement.

In December 2001, the Bonn Agreement set up a three-stage process to provide governance. It established the Afghan Interim Authority with a six-month mandate to govern the country until an emergency Loya Jirga, a constituent assembly of religious leaders, could select a broad-based Afghan Transitional Authority to lead the country, pending approval of a constitution and the election of a fully representative government within two years.[6] Those involved in the conference hoped the emergency Loya Jirga would broaden the base of the government, assert civilian leadership, promote the democratic process, and take authority away from the regional leaders.[7] Afghan leaders formed an interim government under the leadership of the Pashtun moderate Hamid Karzai.[8] These events underscored commonalities among different Afghan groups dedicated to removing foreign forces from Afghan soil and regaining control of their national life—even if many of these groups agreed on little else.[9] To help provide security for the fledgling new regime, in December 2001, the UN authorized an international force, the International Security Assistance Force (ISAF), with a mandate to help the Afghans maintain security in Kabul and the surrounding areas. ISAF is not a UN force but a coalition of the willing, deployed to Afghanistan under the mandate of a series of Security Council Resolutions. NATO took over responsibility for ISAF in August 2003.[10]

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[4] Jalali, "The Legacy of War," 29.

[5] Jalali, "The Legacy of War," 29.

[6] Jalali, "The Legacy of War," 30; Paula R. Newberg, "Neither Stable nor Stationary: The Politics of Transition and Recovery," in *Building a New Afghanistan*, ed. Robert I. Rotberg (Cambridge, Mass: World Peace Foundation; Washington, DC: Brookings Institution Press, 2007), 89; and North Atlantic Treaty Organization (NATO) Public Diplomacy Division, *Afghanistan Report 2009* (Brussels: North Atlantic Treaty Organization, 2009), 33.

[7] Jalali, "The Legacy of War," 30.

[8] Library of Congress – Federal Research Division, "Country Profile: Afghanistan," Library of Congress, http://lcweb2.loc.gov/frd/cs/profiles/Afghanistan.pdf (accessed 18 November 2009), 3.

[9] Newberg, "Neither Stable nor Stationary," 89.

[10] For more discussion on the history of ISAF, see Dale, *War in Afghanistan*, 7 and NATO Public Diplomacy Division, *Helping Secure Afghanistan's Future* (Brussels: North Atlantic Treaty Organization, 2008), 12

In 2002, progress in rebuilding continued. In January, Japan, the United States, the European Union, and Saudi Arabia co-hosted a ministerial conference in Tokyo to discuss aid to Afghanistan. At the Tokyo Conference, donors pledged $4.5 billion.[11] Participants at the Tokyo Conference also agreed to the *lead nation* model of international assistance in Afghanistan. Five countries each agreed to assume the lead coordination responsibility for assistance to a single area of security-related Afghanistan administration—the United States for the army, Germany for the police, Italy for the judiciary, the United Kingdom for counternarcotics, and Japan for the disarmament, demobilization, and reintegration of militias.[12] March brought the establishment of the United Nations Assistance Mission to Afghanistan (UNAMA), through Security Council Resolution 1401, to help implement the Bonn Agreement. UNAMA's guiding principle was to reinforce the Afghan leadership and strengthen international cohesion in support of that leadership.[13] Also in 2002, Karzai was selected as president of the Transitional Islamic State of Afghanistan, whose ruling council included the disparate leaders of the anti-Taliban Northern Alliance.[14]

Early 2004 brought the ratification of a new constitution. In April 2004, representatives from 65 nations and international organizations met in Berlin to pledge additional support for the reconstruction of Afghanistan. The Berlin Conference saw the pledging of more than $8.2 billion for Afghanistan. In October 2004, an overwhelming popular vote elected Karzai the president of the new Islamic Republic of Afghanistan. Regional warlords and large areas of Afghanistan, however, remained beyond the control of the Karzai government.[15]

Despite substantial international aid, the Afghan government, which included representatives from many factions, was unable to address successfully the numerous social and economic problems. As a result, the parliamentary elections of September 2005 gave regional warlords substantial power in both houses of the National Assembly, which further jeopardized Karzai's ability to unite the country. The Bonn Agreement

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[11] All dollar amounts in this paper are in US dollars.
[12] For details about the Tokyo Conference, see NATO, *Afghanistan Report*, 33 and Dale, *War in Afghanistan*, 9.
[13] For details about the establishment of UNAMA, see NATO, *Afghanistan Report*, 33.
[14] Library of Congress, "Country Profile: Afghanistan," 3.
[15] For more information on the events of 2004, see Library of Congress, "Country Profile: Afghanistan," 3-4 and NATO, *Afghanistan Report*, 33.

expired shortly after the 2005 Afghan elections, and the successor agreement went into effect in early 2006. [16]

During the London Conference in January 2006, the Government of Afghanistan and the international community signed a political agreement, the Afghanistan Compact, defining the principles of their cooperation for 2006-2011. The Compact identified three critical and interdependent pillars—security; governance, rule of law, and human rights; and economic and social development. The international community agreed on a set of benchmarks and timelines to monitor implementation of the Compact and committed to improve effectiveness, transparency, and accountability. During the conference, donors pledged $10.5 billion toward this effort.[17]

The Afghanistan Compact shifted responsibility from the *lead nations* to Afghanistan itself.[18] The Compact identified important ideas regarding security. It postulated that genuine security remains a fundamental prerequisite for achieving stability and development in Afghanistan; that the military cannot provide the only security; and that security requires good governance, justice, and rule of law, reinforced by reconstruction and development.[19]

The goals for the transportation sector in the Afghanistan Compact provided a basis for rebuilding the infrastructure necessary to sustain reconstruction in other sectors. Regarding roads, the Compact identified that Afghanistan would have a fiscally sustainable system for road maintenance by 20 March 2008 and a fully upgraded and maintained ring road, as well as roads connecting the ring road to neighboring countries by 20 March 2009. The air-transport goals in the Compact included: by 20 March 2011, Kabul International Airport and Herat Airport were to achieve full ICAO compliance; Mazar-i-Sharif, Jalalabad, and Kandahar airports were to be upgraded with runway repairs, air navigation, fire and rescue, and communications equipment; seven other domestic airports were to be upgraded to facilitate domestic air transportation; and air

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[16] Library of Congress, "Country Profile: Afghanistan," 4.
[17] For more details about the Afghanistan Compact, see NATO, *Afghanistan Report*, 33.
[18] Dale, *War in Afghanistan*, 10.
[19] "The Afghanistan Compact," (London: The London Conference on Afghanistan, 31 January 2006), 3.

transport services and costs were to be increasingly competitive with international market standards and rates.[20]

The follow-on reconstruction plan for Afghanistan is the Afghanistan National Development Strategy (ANDS). The ANDS represents the combined efforts of the Afghan people and the Afghan government to address comprehensively, with the support of the international community, the major challenges that face the country.[21] The ANDS recognizes the leadership of the Afghan Government in setting its developmental priorities and represents the road map for joint international action.[22] While the ANDS focuses on the 2008-2013 timeframe, it also reflects Afghanistan's long-term goals.[23] President Karzai and the Afghan Cabinet approved the ANDS as a strategy for security, governance, economic growth, and poverty reduction on 21 April 2008.[24] The Afghan government estimated the cost of achieving the goals of the ANDS at $50 billion, with Afghanistan providing $6.8 billion and international donors asked to provide the rest.[25]

The ANDS provides two important functions. The first presents the country and the international community with a comprehensive study of development priorities within the nation and a unified strategy (that all ministries and state agencies subscribe to) for Afghanistan emerging from decades of war. The second synchronizes strategies between different ministries by formulating a central planning document and helping to bring about efficiency in projects and programs. The pillar structure of the ANDS helps categorize development needs and aids government ministries, donors, international organizations, and the Afghan society in identifying areas of work and cooperation.[26]

The Afghan Government officially launched the ANDS at the Paris Conference on 12 June 2008—the third international conference held since the formation of the

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[20] For detailed information on the goals, see "The Afghanistan Compact," 9.

[21] *Afghanistan National Development Strategy (ANDS): 1387-1391 (2008-2013)* (Kabul: Government of the Islamic Republic of Afghanistan, 2008), 5.

[22] NATO, *Afghanistan Report*, 33.

[23] *ANDS*, 6.

[24] Government Coordination Committee of the Islamic Republic of Afghanistan, *Afghanistan National Development Strategy First Annual Report 1387, Part I* (Kabul: Government of the Islamic Republic of Afghanistan, 2009), 9.

[25] Curt Tarnoff, *Afghanistan: U.S. Foreign Assistance*, CRS Report for Congress, R40699 (Washington, DC: Congressional Research Service, 2009), 2.

[26] For more information on the functions of the ANDS, see Saurabh Naithani, *ACBAR's Guide to the ANDS: A Comprehensive Guide to the Afghanistan National Development Strategy* (Kabul: Agency Coordinating Body for Afghan Relief, 2007), 3.

Afghan government. More than 80 donors pledged over $21 billion, focusing their assistance on the agriculture, irrigation, and energy sectors.[27]

The Afghanistan Government's Plan for the Future

The ANDS groups the goals of the Afghanistan government into three pillars—security; governance, rule of law, and human rights; and economic and social development.[28] The sub-areas that have a large impact on the future of the country are poverty, security, economics, infrastructure development, and transportation. All of these areas are tied together in developing a balanced country that is able to sustain growth in the future.

The central objective of the ANDS is poverty reduction. Poverty in Afghanistan is widespread, with as much as 42 percent of the population living below the line. A significant number of additional people live precariously close to the poverty line, and even relatively small increases in the cost of living can potentially tip many more into absolute poverty.[29] Additionally, 40 percent of the rural population is considered malnourished.[30] These figures demonstrate how widespread poverty is in Afghanistan and therefore how important it is to deal with the problem. In order to effectively deal with the poverty problem, though, there are a number of other areas to address.

An important step in the process of building a future for the country is to ensure population security. The Afghan government plans to establish a professional, ethnically balanced Afghan National Army that is accountable, organized, trained, and well equipped to meet the security needs of the country by the end of 2010.[31] The security forces will become proficient when they are able to sustain themselves without outside help. In order to do this the government must have an effective tax base from which to raise funds. This tax base can only come from a productive, legal economy.

A key strategic objective of the ANDS is to establish a secure economic environment that will attract sufficient levels of private-sector investments and lead to increased use of resources in ways that are more productive. A critical element in

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[27] NATO, *Afghanistan Report*, 33.
[28] *ANDS*, i.
[29] For more information on the poverty situation, see *ANDS*, 189.
[30] *Transport and Civil Aviation Strategy: 1387-1391*, *Afghanistan National Development Strategy* (Kabul: Government of the Islamic Republic of Afghanistan, 2008), 13.
[31] *ANDS*, 56.

achieving this objective will be to increase substantially investment in capacity development. The goal is to create new education and employment opportunities for an emerging skilled workforce that will then lead to expanded opportunities and higher income. The Afghan government sees the future expansion of the economy resting on government policies that encourage economic growth led by the private sector.[32] For this to occur, the government must take steps to ensure that there is an infrastructure in place to support the expanded economic base.

Accelerating the establishment of a productive infrastructure is one of the highest priorities of the Afghan government. A national infrastructure, whether linking major regional trade corridors through a national road network or increasing productivity through small-scale irrigation projects, is a key factor to enhancing the long-term growth potential of the Afghan economy. This infrastructure is also important to improving the ability of the poor to benefit from and contribute to the growth of the country, and therefore support the fight to reduce poverty.[33] The government understands that Afghanistan's mountainous terrain, land-locked status, and poor transportation systems present particular challenges to the movement of goods and people around the country.[34] The government also believes a well-built and maintained road network will serve to strengthen regional ties and help establish Afghanistan as a regional trade hub.[35] Therefore, despite the challenges, the government has a plan to improve the transportation infrastructure in order to fill these current limitations, and it is natural for the government to think of roads first. This paper will urge Afghans to think beyond roads.

The national strategic goal for the transportation sector is to have a safe, integrated transportation network that ensures connectivity and that enables low-cost and reliable movement of people and goods domestically as well as internationally. This strategy will contribute toward achieving the targets established in the 2006 Afghanistan Compact. An improved transportation sector will support other national goals as well.

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[32] For more analysis of the economic environment, see *ANDS*, 52 and 187.

[33] "Accelerating Infrastructure Development," Draft paper for discussion at the Afghanistan Development Forum 2005 (Kabul: Government of the Islamic Republic of Afghanistan, 2005), 1.

[34] Islamic Republic of Afghanistan Ministry of Transportation and Civil Aviation, *Ministry of Transportation and Civil Aviation Strategy* (Kabul: Government of the Islamic Republic of Afghanistan, 2007), 3. (Referenced as: MoTCA, *Strategy*)

[35] *Transport and Civil Aviation Strategy*, 10.

The transportation sector will improve the security situation by improving connectivity that enables the society to be closer together and allows for more coordinated activities by the government and the military.[36] The Afghan government has specific goals for each area of the transportation sector.

Security is a principle factor in determining the success of Afghanistan's development process.[37] The Afghan government believes that road development specifically contributes to maintaining and increasing security by providing connectivity within the country.[38] Road development is also a vital and important factor in the economic and social development of the country for the same reason.[39] Therefore, the government continues to give high priority to rehabilitating the badly damaged national road system.[40] Figure 2 illustrates the main national road, the "Ring Road," in Afghanistan. The Emergency Transport Rehabilitation Project approved in March 2004 provided $108 million for improving the infrastructure of Afghanistan.[41] Two components of the project were to renovate existing highways and overhaul selected secondary and other minor roads serving the rural population.[42] The Master Plan for road infrastructure development identified in the 2008 ANDS estimated the cost to improve the national road network at $1.4 billion and to improve the provincial road network at an additional $1.3 billion.[43] The funding needed to rehabilitate the national road infrastructure is far greater than what was initially supplied. The goals for other transportation infrastructure are also optimistic.

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[36] For more information on the goals for the transportation sector, see *ANDS*, 9 and *Transport and Civil Aviation Strategy*, 17.

[37] Islamic Republic of Afghanistan Ministry of Public Works, *Ministry of Public Works Strategy (Draft)* (Kabul: Government of the Islamic Republic of Afghanistan, 2007), 20. (Referenced as: MPW, *Strategy*)

[38] MPW, *Strategy*, 20-21.

[39] MPW, *Strategy*, 20.

[40] *ANDS*, 9.

[41] Jane's Information Group, *Jane's Sentinel Country Risk Assessment: South Asia*, Issue 21 (Alexandria, VA: Jane's Information Group Limited, 2008), 33.

[42] Jane's, *Jane's Sentinel,* 33.

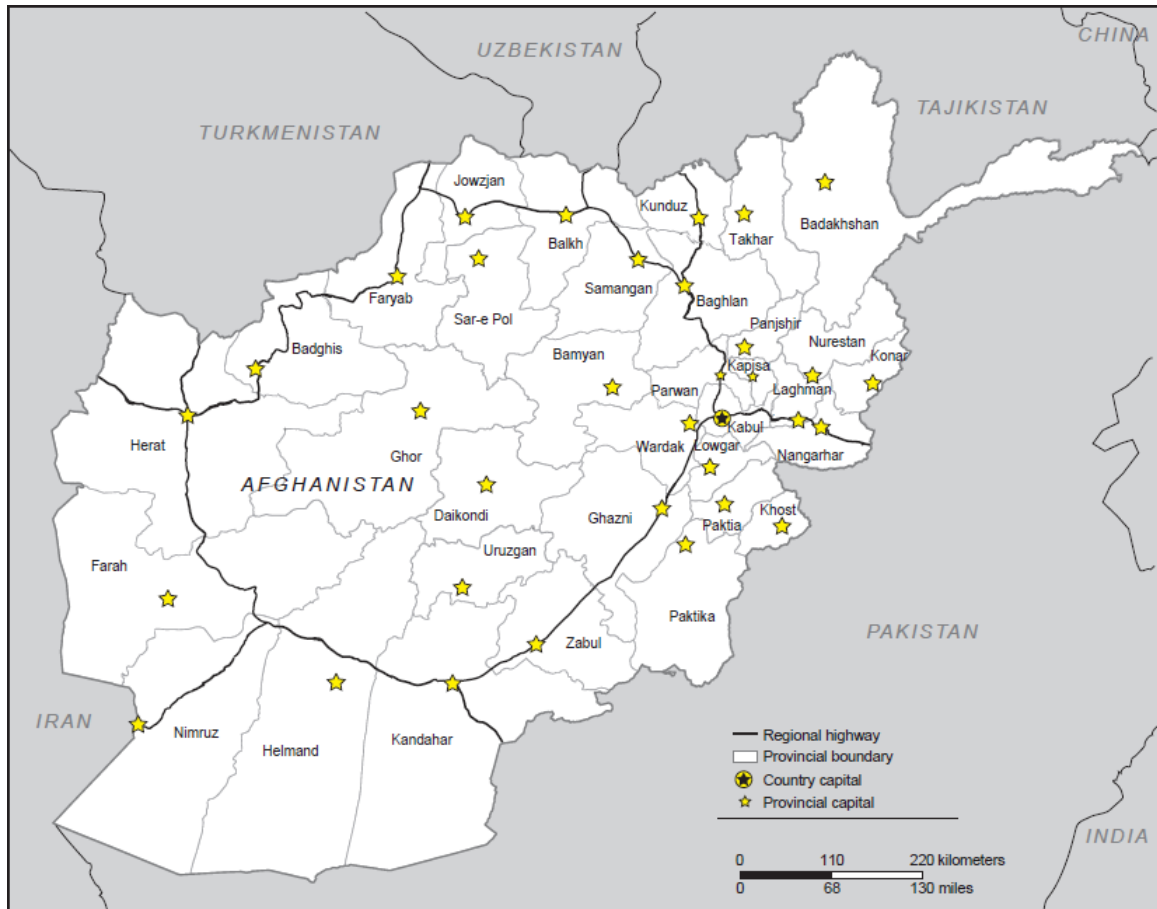[43] *Transport and Civil Aviation Strategy*, 14.

Figure 2: Map of Afghanistan (Source: US Government Accountability Office, *Afghanistan: Key Issues for Congressional Oversight,* Report to Congressional Committees, GAO-09-473SP (Washington, DC: Government Accountability Office, 2009), 3)

The Afghan government believes that railway links in Afghanistan are critical to the country's infrastructure and economic development because companies currently bring bulk commodities to Afghanistan's border by rail and transload the commodities to trucks for movement within the country. This process is very inefficient and costly because the transport costs of bulk commodities are typically cheaper by rail than by road. There are proposals to construct three new rail links into Afghanistan to help make the movement of commodities more efficient. The economic feasibility of these proposed rail extensions into Afghanistan, however, will not be realized until far into the future when sufficient traffic volume can be generated to offset the high costs of construction and maintenance. Currently and into the near- and medium-term future (5-

10 years) the government believes that only road transport is economical to move major imports and exports to, from, and within Afghanistan.[44] While this is a valid argument for large quantities of commodities, it does not do enough to jump-start quickly the economy. This is where air transport can offer some solutions to infrastructure problems.

The goals of the Ministry of Transportation and Civil Aviation are to deliver effective public transport services to the entire population; to attract world-class airlines to serve Afghanistan by conforming to the requirements of the ICAO; to create the necessary infrastructure to support domestic and international air transport; and to promote a competitive aviation environment for international and domestic service. The most important of the many goals these efforts hope to accomplish include a facilitation of trade within Afghanistan and the reduction of poverty through the creation of job opportunities. An efficient air transportation system will facilitate reconstruction, especially while stabilizing internal security. Developing a strong civil aviation infrastructure will help alleviate rural poverty when combined with a number of programs in other sectors of the reconstruction effort. For example, poor Afghan farmers have the potential to grow perishable, high-value crops and send them to regional and international markets quickly by air.[45]

The Afghan government's plan for the future is an important step in the rehabilitation and reconstruction process. The ability to meet the objectives of the plan depends on the ability to the Afghan government to effectively administer the necessary policies and gain international support for the plan. There are some additional challenges the Afghan government must address in order to be successful in its development plan.

Challenges for Afghanistan

The challenges of rebuilding post-Taliban Afghanistan are immense and multi-faceted. The rebuilding requires the creation of a broad-based national government, the establishment of security throughout the country, and the reconstruction of a war-devastated economy.[46] Competing demands of fighting an insurgency and rebuilding the

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[44] MPW, *Strategy*, 57.
[45] MoTCA, *Strategy*, 1-2 and 15 and "Afghanistan: Preliminary Needs Assessment for Recovery and Reconstruction," Report to the Steering Committee of Donor Governments (Asian Development Bank, United Nations Development Program, and The World Bank, January 2002), 36.
[46] Jalali, "The Legacy of War," 30.

post-conflict communities have had a major impact on political, social, and economic reconstruction. The Afghan government met the deadlines set for the establishment of democratic political institutions, but the central government's limited administrative capacity and insufficient investment in its ability to deliver services hinders its functionality.[47] The re-emergence of warlords has also contributed to the weakness of the national government.[48] These powerful regional figures have no reason to support a national government and, for as long as they maintain influence, the national government in Kabul will find it nearly impossible to assert its authority over the country as a whole.[49] The lack of anticipated reconstruction activity because of these issues has caused disillusionment, which has begun to generate growing public anger against the Afghan government and the international aid community.[50]

The traditional characteristics of a successfully functioning state continue to elude Afghanistan. The reach of the national government poses a major challenge. The country lacks a nationwide infrastructure necessary for the national government to get out into all parts of the country and govern effectively. The result is a less-responsive national government that is less relevant to much of the population than the local tiers of government might be. As the national government struggles to extend its influence beyond Kabul, the rule of law remains theoretical, and rulings of regional councils invariably supersede the nascent judicial system. The sole functioning unit of government is at the village level, well beyond the control of Kabul and even provincial capitals. The dominance of such local power centers continues to undermine the efficacy of the state. Kabul's weakness has afforded the country's regions a semi-autonomous status, with an implicit acknowledgement that powerful local warlords may act independently with little recourse to the national government. While it is important not to be limited to a formal Western view of democracy, it is also important to understand

[47] Jalali, "The Legacy of War," 39 & 23.
[48] Jane's, *Jane's Sentinel*, 4.
[49] Jane's, *Jane's Sentinel,* 4.
[50] Peter Marsden, "Afghanistan: Economy," in *South Asia 2007*, 4th ed. (London: Europa Publications, 2007), 82.

that the national government must have the power to enforce its policies on regional governments.[51]

In order for the national government to meet the expectations of the populous, it needs to strengthen its control over rural areas and deliver the required services. Removal of existing perceptual and managerial distance between Kabul and the regions is essential for the government to work in a cohesive manner. This will not be easy for the government to accomplish quickly, given traditional methods of transportation. The government needs to join the traditional, local, provincial, and national government bodies into an integrated system of governance with clear roles, links, power, and resources for each element. Participation and inclusiveness will lead to stability. Recovery hinges on the establishment of the rule of law and effective governance. The lack of progress in one area hinders the recovery in other sectors. Additionally, in many districts of Afghanistan, the lack of a government presence, rather than the abilities of the insurgents, is the cause of the Taliban resurgence. While the central government has extensive constitutional authority over the provinces, Kabul's limited ability to intervene and its accommodation of local power brokers have left warlords in control of local government. A robust aviation infrastructure would do much to extend the reach of the national government beyond Kabul.[52]

Unless the government lives up to the expectations of providing security and services, local patronage networks will not only survive but will use their power to influence national programs and reform agendas.[53] In fact, some believe that it is unlikely that Western-style democratic practices will ever replace the age-old system of qawms based on linkages between families, clans, and tribes.[54] Yet, there is a widespread Afghan desire for a strong national government that can provide security in the chaotic post-conflict environment and offer the needed services to war-devastated communities.[55] The ability to resolve the issues relating to national and local governance play a large part in the economic recovery of Afghanistan as well.

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[51] For more analysis, see Jane's, *Jane's Sentinel,* 8-9 and David C. Gompert, Terrence K. Kelly, Brooke Stearns Lawson, Michelle Parker, and Kimberly Colloton, *Reconstruction Under Fire Unifying Civil and Military Counterinsurgency* (Santa Monica, CA: RAND, 2009), 10.
[52] Jalali, "The Legacy of War," 42-49.
[53] Jalali, "The Legacy of War," 45.
[54] Jane's, *Jane's Sentinel,* 4.
[55] Jalali, "The Legacy of War," 44.

The challenge of economic development in Afghanistan is a challenge of state-building, where economic development is linked closely to security and political reform.[56] In order to create the broad-based support required to legitimize the government, a radical change in the economic situation of the country is necessary to generate employment and income, which will provide a flow of tax revenue to Kabul.[57] One change comes with the realization that the growth potential from the rural economy requires a strategy that not only increases agricultural productivity but also goes beyond it.[58] For example, creating off-farm employment through activities that add value to agricultural output is one strategy.[59] Getting these products to market in good condition requires a sustainable transportation system.[60] Without building the physical infrastructure associated with energy, water supply, and transport, the government cannot meet the challenge of sustainable economic growth.[61]

The need for a strong transportation infrastructure is understood, but there continue to be challenges in all areas. Donor countries have faced several challenges in implementing road projects that have contributed to project delays and cost increases. These issues range from poor security conditions to starting construction with limited planning. The problems are not over after completion of the roads either. Because the Afghan government's ability to maintain newly constructed roads is limited, the government failed to meet the 2007 goal of establishing a sustainable road-maintenance program. The Afghan government instead relies on assistance from the international community. This is in part because the government faces significant resource constraints, a fragmented structure where multiple ministries have a stake in the transportation sector, the lack of a comprehensive legal framework, and the inability to enforce fee collection for the transportation sector. According to various plans, estimates of maintenance costs

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[56] Jalali, "The Legacy of War," 49.
[57] Jane's, *Jane's Sentinel,* 9.
[58] Alastair J. McKechnie, "Rebuilding a Robust Afghan Economy," in *Building a New Afghanistan*, ed. Robert I. Rotberg (Cambridge, Mass: World Peace Foundation; Washington, DC: Brookings Institution Press, 2007), 113.
[59] McKechnie, "Rebuilding," 113.
[60] McKechnie, "Rebuilding," 115.
[61] NATO, *Afghanistan Report*, 38.

for the national roads range from $70 million to $90 million annually, not including rural roads.[62]

There are concerns for the aviation industry as well. The Afghan government cannot reach the goals for the aviation industry set in the Afghanistan Compact within the established timeframe because of weak capacity, insufficient institutional organization, and lack of financial resources.[63] Although there are approximately 40 airfields on record, very few are useable for commercial purposes and all are in need of improvements.[64] The ongoing work to upgrade a number of airports is fragmented because of the number of stakeholders with differing objectives and is further complicated by the disparate sources of funding.[65] Military forces continue to use heavily some of the key civil airports slated for reconstruction in the Afghanistan Compact and the ANDS.[66] In addition, information on the status of airfield reconstruction comes from many sources, some of them contradictory, which highlights the fact that no single agency has a complete and accurate overview of the civil-aviation-reconstruction program.[67]

The Air Traffic Management System also faces critical deficiencies. The government staff charged with civil aviation administration lacks critical skills and needs capacity building. The salary system of the civil aviation sector requires emergency reform. It is essential for the Afghan government to attract, retain, and train professional personnel.[68]

Another impediment in the aviation sector is the absence of a modern law and the related regulations. The current aviation law is from 1956, and most civil aviation regulations are from 1972. As part of a 2003 Afghanistan government decree, the existing documents serve as the regulatory basis for the Afghan civil aviation sector.

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[62]US Government Accountability Office (GAO), *Afghanistan Reconstruction: Progress Made in Constructing Roads, but Assessments for Determining Impact and a Sustainable Maintenance Program Are Needed*, Report to Congressional Committees, GAO-08-689 (Washington, DC: Government Accountability Office, 2008), 4 and 21.

[63] *Transport and Civil Aviation Strategy*, 11.

[64] MoTCA, *Strategy*, 3.

[65] MoTCA, *Strategy*, 60.

[66] *Transport and Civil Aviation Strategy*, 16.

[67] MoTCA, *Strategy*, 61.

[68] *Transport and Civil Aviation Strategy*, 16 and 65.

Although dated and in need of an update, these documents provide enough of a foundation so that the civil aviation sector in Afghanistan is able to function—barely.[69]

Despite the challenges with infrastructure, there is some movement in the Afghan civil aviation sector. In 2003, Afghanistan's first private airline, Kam Air, began flights. Ariana, the national airline of Afghanistan, had many of its aircraft destroyed in the military conflicts of 1979-2001, but in 2004 Ariana began regular flights to Delhi, Dubai, Frankfurt, Islamabad, Istanbul, and Moscow. In 2005, however, the European Union banned both Ariana and Kam from airports located in the European Union due to poor safety standards.[70]

A challenge that underlies all of the areas above is the low literacy of the population. The Afghan government needs to focus attention on this area throughout all areas of the reconstruction process to ensure that the progress made is sustainable by indigenous people. If proper attention is not paid to literacy, the population will not be able to take full advantage of the opportunities that reconstruction of the government, economy, infrastructure, and society bring to the country as a whole.

NATO Assistance in Afghanistan

In October 2003, the UN Security Council authorized NATO-led International Security Assistance Force (ISAF) to expand its mission beyond Kabul to the rest of the country. ISAF expanded in a four-stage approach over a three-year period. The expansion included ISAF taking over and establishing new civil-military Provincial Reconstruction Teams (PRT) to provide security for aid workers and assist with reconstruction work in the provinces. The size of ISAF increased progressively as it expanded its presence. In April 2008, the force numbered around 47,000 personnel from 40 countries, up from about 6,000 personnel in 2006.[71] As of 1 February 2010, ISAF's total force strength is 85,795 from 43 countries.[72]

At its 20th Summit held in Bucharest, Romania in April 2008, NATO issued a streamlined vision for Afghanistan. That vision established four guiding principles—a

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[69] MoTCA, *Strategy*, 6 and *Transport and Civil Aviation Strategy*, 32.
[70] Library of Congress, "Country Profile: Afghanistan," 15.
[71] For detailed information on ISAF's expansion, see NATO, *Helping*, 12 and Dale, *War in Afghanistan*, 11.
[72] NATO HQ Media Operations Center - Afghanistan, "ISAF and ANA Strength & Laydown: Feb 2010," (Kabul: North Atlantic Treaty Organization, 2010), 1.

firm and shared long-term commitment; support for enhanced Afghan leadership and responsibility; a comprehensive approach by the international community; and increased cooperation and engagement with Afghanistan's neighbors. The vision maintains the following objectives: that extremism and terrorism will no longer pose a threat to stability; the Afghan National Security Forces will be in the lead and self-sufficient; the Afghan Government will be able to extend the reach of good governance, reconstruction, and development throughout the country.[73] Practical support for reconstruction and development efforts stands as one of ISAF's key supporting military tasks.[74] Additionally, NATO's assistance to Afghanistan includes the rehabilitation of the civil aviation sector. The rehabilitation to international standards will provide for an increase in aviation revenues (currently estimated at $30 million to $40 million per year) that are an important source of state income.[75]

The mission of ISAF's Provincial Reconstruction Teams is to assist the Afghan government to extend its authority; to facilitate the development of a stable and secure environment; and to enable security-sector reform and reconstruction efforts.[76] At the local level, PRTs support capacity-building activities and programs by providing mentors and training and by facilitating linkages between the development community and the Afghan government.[77] PRTs are composed of both civilian and military personnel in conjunction with other military forces providing physical security.[78] The military component focuses on building security-sector capacity and increasing stability, while the civilian component focuses on political, governance, economic, humanitarian, and social issues.[79] The ISAF chain of command includes only the military elements of the PRTs.[80]

After taking over as commander of ISAF in 2009, Gen Stanley McChrystal accomplished his initial assessment of NATO's operations in Afghanistan. He identified

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[73] For more discussion of NATO's vision, see Dale, *War in Afghanistan*, 8.
[74] NATO Public Diplomacy Division, *Progress in Afghanistan 2008: Bucharest Summit 2-4 April 2008* (Brussels: North Atlantic Treaty Organization, 2008), 12.
[75] NATO, *Progress*, 16.
[76] US Government Accountability Office (GAO), *Securing, Stabilizing, and Reconstructing Afghanistan: Key Issues for Congressional Oversight*, Report to Congressional Committees, GAO-07-801SP (Washington, DC: Government Accountability Office, 2007), 19.
[77] NATO, *Afghanistan Report*, 18.
[78] Tarnoff, *Afghanistan*, 3.
[79] NATO, *Afghanistan Report*, 34.
[80] GAO, *Securing*, 21.

that the NATO strategy should not focus on seizing terrain or destroying insurgent forces but instead its objectives must lie within the population. Getting the population's support would require a better understanding of the people's choices and needs. ISAF's mission statement is to "conduct operations in Afghanistan to reduce the capability and will of the insurgency, support the growth in capacity and capability of the ANSF, and facilitate improvements in governance and socio-economic development, in order to provide a secure environment for sustainable stability that is observable to the population." McChrystal stressed that the situation in Afghanistan is serious, but success is possible. In order to do so will require two fundamental changes. First, ISAF must focus on getting the basics right to achieve a new, population-focused operational culture and better unity of action. Second, ISAF must adopt a new, properly resourced strategy to radically increase partnership with ANSF, emphasize governance, prioritize resources where the population is threatened, and gain the initiative from the insurgency.[81]

US Assistance in Afghanistan

The US strategy vis-à-vis Afghanistan after 11 September 2001 was predicated on building strong central government institutions, creating a functioning democracy, and fostering economic development, rather than a more limited effort to combat terrorist concentrations in Afghanistan.[82] After the resurgence of the Taliban, however, the character of the war shifted to a multi-faceted counterinsurgency effort aimed at smothering the insurgency by shoring up the efforts of the Government of Afghanistan to provide security, governance, and economic development.[83] The nation-building task has proved more difficult than anticipated because of the devastation that years of war brought to local governing institutions, the education system, and the already-limited infrastructure.[84]

The United States launched Operation Enduring Freedom (OEF) in order to end the ability of the Taliban regime to provide a safe haven to al Qaeda and to end al

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[81] For more information on McChrystal's assessment, see Stanley A. McChrystal, *COMISAF's Initial Assessment* (Kabul, Afghanistan: Headquarters International Security Assistance Force, 2009), 1-1, 1-2, 2-2, and 2-22.
[82] Katzman, Kenneth, *Afghanistan Post-Taliban: Governance, Security, and U.S. Policy*, CRS Report for Congress, RL30588 (Washington, DC: Congressional Research Service, 2009), 9.
[83] Dale, *War in Afghanistan*, 2.
[84] Katzman, *Afghanistan Post-Taliban* (2009), 9.

Qaeda's use of Afghanistan as a base of operations.[85] Although both ISAF and OEF support the overarching counterinsurgency strategy in Afghanistan, they fill slightly different but complementary roles. OEF forces pursue an aggressive counterterrorism mission and bear primary responsibility for generating and developing the ANSF, while ISAF forces concentrate on stability and reconstruction operations, including command of PRTs.[86]

Since the beginning of 2008, there has been a major Afghan and US push to build up governance, reflecting a shift from the 2001-2007 approach of building only the national government. The latter had gone slowly.[87] The new approach represents an attempt to rebuild some of the tribal and other local structures destroyed in the course of constant warfare over several decades.[88] Some argue that this effort is more compatible with Afghan traditions because Afghans have always sought substantial regional autonomy and resisted strong governance from Kabul.[89] Capable and honest provincial and local government will facilitate effective delivery of public services, connect the Afghan people to the government in Kabul, and increase the legitimacy of the Government of Afghanistan.[90] The Obama administration's *strategic review* of Afghanistan policy, released on 27 March 2009, officially narrowed US goals to preventing a terrorism safe haven in Afghanistan and Pakistan.[91] Many experts have long believed that accelerating economic development in Afghanistan would do more to improve the security situation than intensified anti-Taliban combat.[92] This belief appears to underpin the new US strategy.[93]

In addition to the change in strategy in March 2009, on 1 December 2009, President Obama announced the way forward in Afghanistan: the United States would send an additional 30,000 troops to Afghanistan to "seize the initiative, while building the Afghan capacity that can allow for a responsible transition of our forces out of

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[85] Dale, *War in Afghanistan*, 2.
[86] For the roles of ISAF and OEF, see US Department of Defense (DOD), *Progress Toward Security and Stability in Afghanistan,* Report to Congress (Washington, DC: Department of Defense, June 2009), 16.
[87] Katzman, *Afghanistan Post-Taliban* 2009), 14.
[88] Katzman, *Afghanistan Post-Taliban* (2009), 17.
[89] Katzman, *Afghanistan Post-Taliban* (2009), 14.
[90] DOD, *Progress*, 13.
[91] Katzman, *Afghanistan Post-Taliban* (2009), 9.
[92] Katzman, *Afghanistan Post-Taliban* (2009), 52.
[93] Katzman, *Afghanistan Post-Taliban* (2009), 52.

Afghanistan." The intent of the US military and civilian surge is to stabilize the country and create an 18-month window of opportunity to strengthen the Afghan government's ability to take the lead in providing for its security and delivering essential services to the population. To help enable the Afghans to take charge of their future the United States and the international community are accelerating efforts to build the ANSF, improve governance, and develop the economy. US Secretary of Defense Robert Gates identified that, going forward, the United States will give more leadership opportunities to the Afghans, and work will flow through Afghan structures.[94]

The top development priority now is to restore Afghanistan's once vibrant agricultural sector. The new reconstruction strategy emphasizes agriculture because most Afghans depend on subsistence agriculture for their livelihoods. Poppy production, however, generates more total income that any other crop. The illicit drug trade fuels the insurgency, exacerbates corruption, and undermines good governance. Developing alternative crops to increase Afghan legal income from agriculture is central to the core objective of reversing the Taliban's momentum.[95]

The US program of assistance to Afghanistan has multiple objectives implemented by numerous government organizations in diverse sectors. The main purpose of the program is to strengthen and stabilize the Afghan economic, social, political, and security environment to blunt popular support for extremist forces in the region. Of the $58.2 billion in pledges for assistance to Afghanistan by donors since 2002, the US contribution represents about 57 percent. As of July 2009, Afghanistan was a recipient of nearly $38 billion in US foreign assistance, with nearly two-thirds of this assistance provided since FY 2007. The FY 2009 Supplemental Appropriations bill represented a major change from short- and long-term reconstruction and development activities scattered throughout all of Afghanistan to programs focused on countering the insurgency.[96] One area of focus for the US effort is the air.

Aviation is critical for both combat operations and air mobility in Afghanistan because of a lack of infrastructure and forbidding terrain severely limit the utility of

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[94]Special Inspector General for Afghanistan Reconstruction (SIGAR), *Quarterly Report to the United States Congress* (Arlington, VA: Special Inspector General for Afghanistan Reconstruction, Jan 2010), Intro, 3, and 59.
[95] SIGAR, *Quarterly Report,* 7-8.
[96] Tarnoff, 1-2 and 13.

ground transportation.[97] Afghanistan amounts to a logistician's nightmare.[98] Improving the Afghan infrastructure benefits not only US logistical issues but also the Afghans, as it contributes to building an economy as well.[99] The United States helped improve some of Afghanistan's important airfields, which can now accept larger aircraft than in the past.[100]

The current use of airpower by the United States illustrates the capabilities aviation brings to the country. The raw airpower numbers for 2009 (through November) are large, with 22,931 close-air-support, ground-attack sorties, 15,438 air-refueling tanker sorties, 11,984 C-17 sorties, and 31,871 C-130 sorties. Nearly 100 percent of personnel, ammunition, sensitive cargo, and armored vehicles currently move by air. Additionally, precision airdrop from altitudes in excess of 15,000 feet resupplied isolated Army, Marine, and Special Operations Forces with food, water, fuel, building materials, and humanitarian supplies.[101] Although these capabilities are currently beyond the Afghan government, they serve to illustrate the importance of aviation in a country without a robust transportation infrastructure. The capabilities indigenous aviation will bring to Afghanistan will be different from those the United States brings, but the results could be drastic. US capabilities come with a large personnel presence and cost.

US force levels in Afghanistan have risen over the last couple of years as the US strategy has changed. As part of his administration's early 2009 Afghan policy review, President Obama announced an increase of 21,000 US personnel, which arrived by November 2009 and brought US force levels to about 68,000. Following the second Obama Administration Afghan policy review, the president announced in December 2009 the provision for 30,000 additional US personnel to begin deploying in January 2010.[102]

Based on DOD estimates and budget submissions, the cumulative total for funds appropriated from the 9/11 attacks through FY2009, including funding enacted for DOD,

[97] Dale, *War in Afghanistan*, 18.
[98] Marc V. Schanz, "Enduring Airlift," *Air Force Magazine*, October 2009, 44.
[99] As US Air Force Colonel Gregory Schwartz, Chief of Contingency Operations at US Transportation Command describes in Schanz, 46.
[100] Schanz, 46.
[101] For airpower numbers, see General Barry R. McCaffrey (ret), "Visit to Kuwait and Afghanistan, 10-18 November 2009," After Action Report (West Point, NY: United States Military Academy, 5 December 2009), 6.
[102] Katzman, Kenneth, *Afghanistan Post-Taliban: Governance, Security, and U.S. Policy*, CRS Report for Congress, RL30588 (Washington, DC: Congressional Research Service, 2010), summary.

US Department of State, US Agency for International Aid, and US Department of Veterans Affairs for the War in Afghanistan is $277 billion.[103] As of 31 December 2009, cumulative appropriations for relief and reconstruction in Afghanistan amounted to approximately $51 billion.[104] As of October 2009, the costs for US combat operations are running about $2.5 to $3 billion per month.[105] Since FY2003, the estimated average annual cost per deployed troop has risen from about $320,000 to $390,000.[106] Therefore, the increase of 30,000 additional personnel amounts to an increase of $11.7 billion annually. While security is essential to rebuilding the nation, one must question the ratio of money spent on this function vice the other components of reconstruction.

Summary

Since the fall of the Taliban in 2001, there has been an outpouring of international aid for Afghanistan. From financial to personnel support, the international community has stepped forward at numerous conferences and made pledges to help in the reconstruction effort. The reconstruction has attempted to reform the government, provide security, and rebuild the country. The Afghanistan Compact identified that security cannot be provided by military means alone. To be effective and long-lasting, security requires good governance, justice, and rule of law, reinforced by reconstruction and development. The reconstruction of the country is very important to making any other changes effective.

The central objective of the Afghanistan National Development Strategy is poverty reduction. Accomplishing this objective depends on the ability to create a sustainable national economy based on legitimate sources income. Creating a sustainable economy is heavily dependent on the ability to transport goods, services, and people to markets, both domestically and internationally. Accelerating the establishment of a productive infrastructure is one of the highest priorities of the Afghan government, which believes that well-built and maintained roads will serve to strengthen regional ties. Maintaining security of the road network will be challenging, though, and it will take

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[103] Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*, CRS Report for Congress, RL33110 (Washington, DC: Congressional Research Service, 2009), 1-2.
[104] SIGAR, *Quarterly Report,* 44.
[105] Katzman, *Afghanistan Post-Taliban* (2009), 53.
[106] Belasco, 45.

many years to link the country together sufficiently. A relatively quick way to accomplish this for the near- to mid-term is through the air.

The current timeline for aviation reconstruction, as outlined in the Afghanistan Compact and the ANDS, cannot be met due to weak capacity, insufficient institutional organization, and a lack of financial resources. These limitations exist not because these achievements are not possible, but because they have not received the necessary priority compared to other aspects of the development plan. Concentration on security forces and rebuilding the road system instead of looking at alternate and more efficient ways of jump-starting the economy may be to blame. Additionally, the international strategy has a limited focus on jump-starting the economy.

The latest US strategy in Afghanistan focuses on building up the ability of the Afghan government to effectively govern the country and prevent a safe-haven for terrorism in Afghanistan and Pakistan. The focus on governance is no longer strictly at the national level but also now includes local and tribal structures. The intent of the surge in allied and US personnel is to stabilize the country and create an 18-month window of opportunity to strengthen the Afghan government's lead in providing security and delivering essential services to the population. The United States is also collaborating with Afghan government institutions to develop and implement reconstruction projects. This approach will help build much-needed capacity in Afghan government institutions, but at increased monetary and personnel costs for the US.

Overall, US costs for operations in Afghanistan through FY 2009 are $277 billion. Relief and reconstruction efforts through December 2009 amount to $51 billion of this amount. As of November 2009, the US had 68,000 personnel supporting both Operation Enduring Freedom and the NATO-led ISAF. The additional 30,000 US personnel President Obama authorized started deploying in January 2010. The additional 30,000 US personnel will cost approximately $11.7 billion annually. While nothing can be done to fix the lack of significant progress generated by the amount of money spent on US efforts in Afghanistan so far, something needs to be done to ensure the money is spent effectively.

The current strategy lacks focus and attempts too much instead of identifying areas that will provide immediate improvements for the country. Concentrating on a

couple of areas to stimulate reconstruction and development may provide incentive to other areas of improvement. Building an aviation infrastructure has great potential to enhance security, establish communication links, extend the reach of the central government, and jump-start the economy.

Chapter 4

Recovery through Aviation

The rebuilding of our civil aviation system is the cornerstone of Afghanistan's social and economic development, as well as a powerful symbol of the global reconstruction efforts underway in our country.

-- Dr. Zalmai Rassoul, Minister of Civil Aviation and Tourism of the Interim Administration of Afghanistan, 30 May 2002

The Overall Plan

The overall goal of the recovery-through-aviation plan is to make Afghanistan an air-faring nation. This strategy focuses on two main areas. The first area is rebuilding those aspects of the infrastructure that will enhance security and accelerate the economy.[1] The second is giving the national government the ability to move efficiently around the country to improve governance.

Aviation has an important role to play in the Afghan transportation infrastructure because difficult terrain, severe climatic conditions, banditry, and insurgent activity hamper movement by road. The national road system is undergoing an extensive rehabilitation program, with completion of the ring road as the priority. While this should restore relatively rapid and reliable services for freight and passengers close to the ring road, many other more isolated provincial centers with large populations will still have to wait many years for good road links. Furthermore, constraints imposed by harsh terrain mean the government may never upgrade many roads to highway standards.[2]

The development of domestic airports, therefore, is central to the integration of remote regions into Afghanistan's economic core. Not only would these airports encourage economic growth through inward investment and the movement of goods and people, they would also allow humanitarian aid to be moved more rapidly to distressed areas and would allow the national government in Kabul to extend its reach to remote regions more easily. The process of rehabilitation itself would also contribute directly to

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[1] *Afghanistan Study Group Report: Revitalizing Our Efforts, Rethinking Our Strategies* (Washington, DC: Center for the Study of the Presidency, 2008), 15.

[2] *Transport and Civil Aviation Strategy: 1387-1391*, *Afghanistan National Development Strategy* (Kabul: Government of the Islamic Republic of Afghanistan, 2008), 64.

creating employment and generating income. Better communication links would also contribute accessibility to centrally located medical facilities, stimulate interethnic reconciliation, and promote political unification. Finally, improvements to domestic aviation services would facilitate the movement of pilgrims from remote regions to the Hajj through the international hubs at Kabul and Herat (and regional airports at Mazar-i-Sharif, Jalalabad, and Kandahar).[3]

An air infrastructure requires resources in the form of facilities, personnel, and governance. Facilities: the necessary resources include upgrades to runways, airport terminals, airport security, communications, emergency services, navigation aids, and training infrastructure. The current goal is to achieve International Civil Aviation Organization certification for Kabul International and Herat Airports, but the end goal should be certification for all the major and regional airfields in Afghanistan. Personnel improvements include providing competitive pay and the necessary training to make working in the aviation sector an attractive enterprise. The improvement of governance includes updating aviation laws and regulations to modern standards and ensuring unified oversight of the aviation industry.

Successful implementation of this plan would have numerous benefits for the people of Afghanistan. Offering a secure transportation method is important. Extensive road and rail networks represent good infrastructure developments in a secure environment, but Afghanistan is not a secure country at this time (nor will it be in the near future). Security must not be the only criterion for development efforts, however.[4] They must continue in the country in order to ensure progress, but the transportation system should be as secure as possible. Aviation has great potential when compared to other means. An aviation infrastructure will be easier to secure than thousands of miles of roads because only a small number of airports throughout the country need security instead of an entire network. Development often creates security, as well, by bolstering people's confidence in their government and providing a positive, tangible alternative to

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[3] *Transport and Civil Aviation Strategy*, 64.
[4] Nathaniel C. Fick and John A. Nagl, "Counterinsurgency Field Manual: Afghanistan Edition," *Foreign Policy* 170 (Jan/Feb 2009): 45.

the Taliban.[5] The use of aviation allows for the development of previously remote areas and provides for the expansion of the security that accompanies the development.

Investment in aviation will give the Afghan government the capability to travel throughout the country and effectively govern previously remote areas. Effective governance will help increase the credibility of the Afghan government and expedite the exit of international personnel, especially since the United States and its allies do not plan to remain in Afghanistan indefinitely.[6] Aviation provides a way to increase the effectiveness of the government and jump-start the economy, while reducing the need to secure a large and vulnerable surface transportation infrastructure.

A recent study highlights the aviation industry's contribution to world economic output and growth, especially in developing countries. The benefits go beyond just the jobs created because the aviation industry links a country to the global economy and accelerates growth in all sectors. The access to markets for trade allows countries to support their populations better. Developing countries that improve their ability to access the air commons experience the greatest return on investment compared to established economies. A recent International Air Transport Association (IATA) study analyzed the relationship between access to the air commons and economic growth in 48 countries of various degrees of development from 1996 to 2005. On average, a 10 percent increase in connectivity saw a 0.07 percent increase in productivity and a double-digit percentage return on investment for established economies. Developing countries saw significantly higher positive results. This provides promise for the development of Afghanistan as a nation.[7]

Aviation will nonetheless stimulate the development of surface infrastructure because it will provide a source of funding. The civil aviation sector generated about $30 million in 2008 from commercial over-flight fees and airport taxes.[8] As the aviation infrastructure expands, the income generated will provide an effective income source for the government. Of the $30 million collected in 2008, the Afghan government returned

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[5] Fick and Nagl, "Counterinsurgency Field Manual ," 45.
[6] Fick and Nagl, "Counterinsurgency Field Manual ," 46.
[7] For more analysis on the IATA study see Oliver Fritz and Kelly Martin, "Sustaining the Air Commons," in *Contested Commons: The Future of American Power in a Multipolar World*, ed. Abraham M. Denmark and Dr. James Mulvenon (Washington, DC: Center for a New American Security, 2010), 84.
[8] *Transport and Civil Aviation Strategy*, 16.

only $6 million to the Ministry of Transportation and Civil Aviation to cover salaries.[9] While the rest of the money collected could have been used to expand aviation operations, the focus of reconstruction efforts was not on aviation at the time. Until the government fully supports the aviation reconstruction plan, the money generated via aviation activities will not reach its full potential.

There are some challenges to the aviation-centered plan. One challenge deals with the initial viability of a *commercial* aviation plan. Should market forces guide domestic air operations or should the Afghan government view some routes as necessary and therefore provide financial backing for them? Some domestic air routes may be commercially viable immediately after improving the facilities in an area, while other routes may take years to reach standards. Some analysts believe that many of the 22 routes flown by Afghanistan's domestic carrier in the 1970s are not commercially viable today but may be needed as a public service for social and developmental reasons. As the economy and road system develop, conflicting trends may also result. Some air routes that might flourish in the immediate future might find profitability harder when the road system is eventually improved, especially regarding cargo routes. On the other hand, increased economic activity might increase demand on some routes that were not initially profitable.[10]

This particular challenge may lend itself to initial government sustainment of portions of the aviation sector instead of allowing it to be strictly a free-enterprise endeavor. This will ensure that there is adequate movement by air to all parts of the country to support the initial recovery of the economy and extend the reach of the national government. As the system matures and strengthens, the government may reduce or eliminate its sustainment role. One method to accomplish the sustainment is by controlling the national airline. Another method is through the integration of military aviation, as discussed in a later section.

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[9] *Transport and Civil Aviation Strategy*, 16.
[10] Hasan Masood, *Afghanistan's Transport Sector Strategy: On the Road to Recovery* (Manila, Philippines: Asian Development Bank, 2002), 13.

Afghan Government Plan for Aviation Infrastructure

The Afghanistan National Development Strategy outlines the specifics of the Afghan government's plan for the aviation sector. See Figure 3 for a map of Afghanistan airports. The strategy reinforces the goals outlined in the Afghanistan Compact and has a goal for completion of 20 March 2011. The air transport goals include Kabul International Airport and Herat Airport achieving full ICAO compliance; upgrading Mazar-i-Sharif, Jalalabad, and Kandahar airports with runway repairs, air navigation, fire and rescue, and communications equipment; upgrading seven other domestic airports to facilitate domestic air transportation; and providing increasingly competitive air transport services and costs in line with international market standards and rates.[11] In addition, the government will implement programs to ensure that the principal airports and the civil
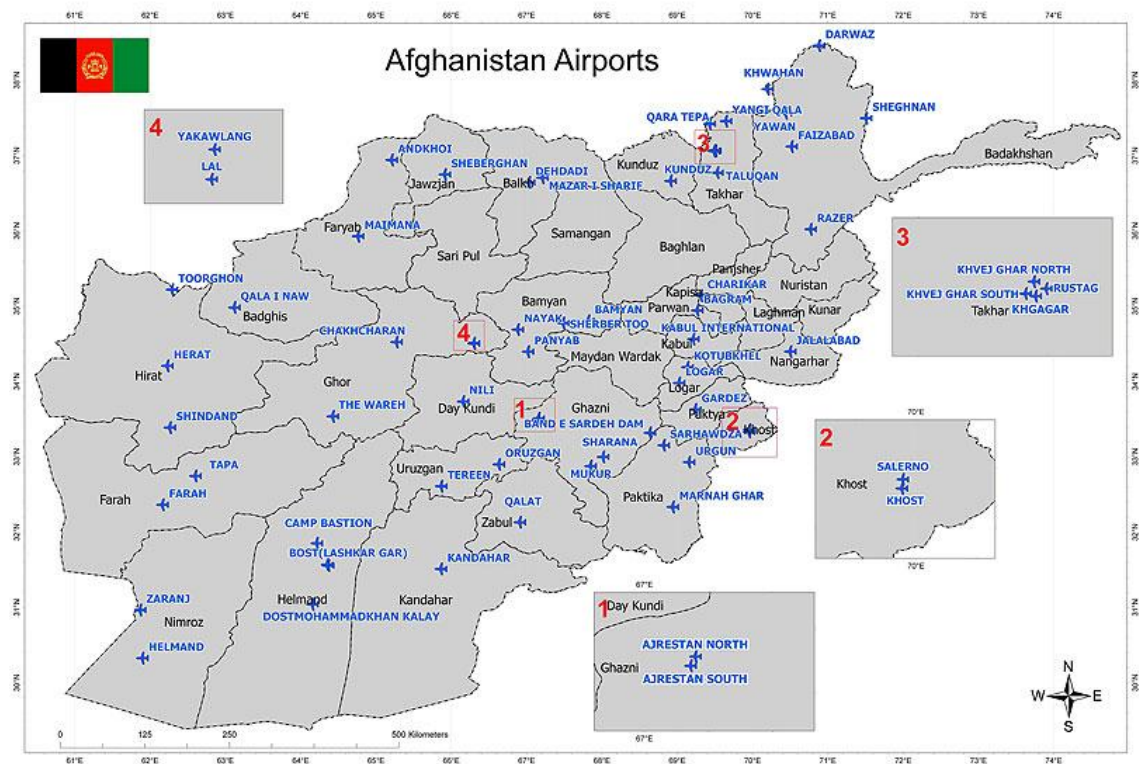

Figure 3: Map of Afghanistan Airports (Source: Islamic Republic of Afghanistan Ministry to Transportation and Civil Aviation, "Afghanistan Airports Map," http://www.motca.gov.af/airportsmap.htm. (Accessed 12 May 2010))

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[11] "The Afghanistan Compact," (London: The London Conference on Afghanistan, 31 January 2006), 9.

aviation authorities conform to the requirements of ICAO and IATA, including establishing a new Civil Aviation Authority to promote air transport in a competitive environment.[12] The government also foresees a regulatory framework to encourage private investment under an *open skies* policy.[13] The ANDS also outlines specific airport improvements and costs. Descriptions of specific airport plans follow.

Kabul International Airport is Afghanistan's primary international airport; and its importance to the economic development, status, and overall normalization of life in Afghanistan cannot be overstated. Upon completion of the necessary upgrades to achieve ICAO standards, Kabul International Airport will undoubtedly attract major commercial passenger and cargo operators, which will help boost inward investment, tourism, and other economic activity. The airport will also act as the main gateway for the local population to travel internationally. The extensive rehabilitation effort to achieve these goals involves multiple projects.[14]

The projects include refurbishment of existing infrastructure, the construction of new facilities, and improving security measures. There has already been considerable development at Kabul International Airport, funded mainly by international donors, which has brought the airport up to ICAO compliance in many areas. For example, the government of Japan funded a new terminal in 2008. As of 2008, there were four outstanding contracts, however, to be completed if the airport was to be fully ICAO compliant and acceptable to major carriers: safety and security, an airport master plan, and emergency repairs to the southern taxiway. The overall cost to bring Kabul International Airport up to standards that would attract major commercial passenger and cargo operators is around $50 million.[15]

The other airport intended to meet ICAO standards to allow for international use is Herat Airport. Herat is a major regional airport that is important to the future economic development of Herat Province. The United States constructed the airfield, which is located south of the city of Herat, around 1960. The Russians used the airport as a military base between 1979 and 1989. The existing airport caters to both civilian and

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[12] *Afghanistan National Development Strategy (ANDS): 1387-1391 (2008-2013)* (Kabul: Government of the Islamic Republic of Afghanistan, 2008), 97.
[13] *ANDS*, 97.
[14] *Transport and Civil Aviation Strategy*, 60.
[15] *Transport and Civil Aviation Strategy*, 60-61.

military aircraft. Because of its location, the airport has the potential to become a key commercial hub for this region of the country. The ability to export produce by air can play a major part in the regeneration of Afghanistan and the Herat region. Without ICAO compliance, however, the airport would not be useable for the majority of international commercial air passenger and cargo operators, and investment to date would be nugatory.[16]

The conceptual design and cost estimate that would ensure that Herat Airport achieves ICAO compliance from an airfield infrastructure perspective amounts to $42.5 million. This figure includes the installation of a new runway (not required for ICAO certification), refurbishment of the existing runway, expansion of existing apron space, installation of all taxiway and runway lighting, and installation of all taxiway and runway signage. The Ministry of Transportation and Civil Aviation estimates the full cost of refurbishment at $80 million, although the robustness of this estimate is questionable.[17]

Another of the four regional airports identified for reconstruction by the Afghan government is in Jalalabad, located approximately 90 miles east of Kabul on a plain at an elevation of 1,800 feet. Because of its lower elevation, Jalalabad has less severe winter weather than Kabul. Jalalabad is also a major economic center and has good road connections to Kabul. Rehabilitation of the airport would boost economic growth by providing an additional vital communication link to Kabul. Moreover, it would attract internal commercial aviation, including passenger and cargo traffic, which would stimulate inward investment.[18]

Jalalabad Airport has not had the major upgrades necessary to make it either a viable regional airport or an alternate airport for Kabul International Airport. There is some military and UN traffic at the airport due to the presence of a Provincial Reconstruction Team. The airport operates under the Ministry of Defense, and in 2003, the ministry delegated control of airport operations to the US military. Since then, a command post and offices occupy the former terminal building and car parking area. The construction of a new office building, airline accommodations, restrooms, and a small control tower is complete. All aircraft pavements, however, are in poor condition.

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[16] *Transport and Civil Aviation Strategy*, 63.
[17] *Transport and Civil Aviation Strategy*, 63.
[18] *Transport and Civil Aviation Strategy*, 61-2.

Additionally, due to the military activity at the airport and the fact that Jalalabad Airport is under the MoD, any work at the airport, particularly in the military movement area by a civilian contractor, would be extremely difficult.[19]

Making Jalalabad Airport into an ICAO-compliant regional airport requires refurbishment of the runway, taxiway construction, lighting upgrades, fire coverage, construction of a runway-end safety area, and the movement of some trees and military buildings. The goal is to develop the airport to a standard that will allow regular service by B-727 and B-737 aircraft for both day and night operations. The cost of upgrading the airport to ICAO standards is $9.3 million.[20]

Kandahar is another regional airport identified for reconstruction. It is a major regional airport that is important for the economic development of the Kandahar Province and the southern region of Afghanistan. Kandahar serves as Afghanistan's second city, and rehabilitation of the airport would boost economic growth by providing a vital communication link to Kabul. Similar to the other airports, the upgrades to Kandahar Airport would attract internal commercial aviation, which would attract investment and provide an outlet for goods from the South. There is plenty of potential for the Ministry of Transportation and Civil Aviation to leverage the NATO/US airfield infrastructure at Kandahar in order to develop a thriving regional airport. Commercial passenger operations already exist at Kandahar, albeit at a low level, so the investment required is not as acute as other airports. Nevertheless, after addressing higher-priority work at Kabul International Airport and Herat Airport, building up the civil aviation infrastructure at Kandahar would likely yield considerable return. Upgrades already completed include the runway, runway lighting, an instrument landing system for all-weather operations, and an improved terminal. The two remaining priorities for upgrading Kandahar Airport involve replacing the fuel storage system, which is obsolete, and improving security infrastructure, without which passenger services cannot expand. Other projects include the construction of a cargo ramp so that airlines can begin commercial freight operations. The total cost for these upgrades is $15 million. Commercial operations are currently taking place at Kandahar so none of the projects is

[19] *Transport and Civil Aviation Strategy*, 62.
[20] *Transport and Civil Aviation Strategy*, 61-62.

of immediate priority. Kandahar has considerable potential as a regional hub, however, that the Ministry of Transportation and Civil Aviation wishes to exploit. Without the additional measures outlined above, growth at the airport will be constrained.[21]

In accordance with the Afghan Compact, upgrades will occur at seven additional domestic airports to facilitate air transport. The scope of work for each airfield consists of the construction of a paved runway, a taxiway, an apron, a new passenger terminal, a fire station, a control tower, utilities, domestic accommodations, roads, parking areas, maintenance facilities, approach path indicators, and an automated weather station. The Asian Development Bank (ADB) earmarked $20 million for reconstruction of these airports, but this money proved to be enough for only four airports. ADB earmarked an additional $16 million in 2009 for the three additional airports.[22] The reconstruction plans for these seven airports make them capable of day-visual-flight-rules operations only. The capability to operate at night and in bad weather would add to the required upgrades and associated costs but would also increase the capabilities of the entire Afghan aviation system.

Funding

In 2002, the proposed ten-year capital investment costs for the rehabilitation of eight major airports, six regional airports, 14 smaller airports, and building a civil aviation training center was $70 million.[23] On 30 May 2002, the Afghan government and ICAO signed an agreement for the rebuilding of Kabul International Airport and the provision of air-traffic-control services.[24] The $8.2-million project funded by Afghanistan was part of a larger initiative by ICAO for the rehabilitation of Afghanistan's civil aviation system at an overall estimated cost of $37 million.[25] In addition, the Afghan government's priorities for civil aviation in 2004 totaled $35.5 million for the reconstruction of Herat and Jalalabad Airports and the acquisition of

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[21] *Transport and Civil Aviation Strategy*, 62-63.
[22] *Transport and Civil Aviation Strategy*, 64.
[23] "Afghanistan: Preliminary Needs Assessment for Recovery and Reconstruction," Report to the Steering Committee of Donor Governments (Asian Development Bank, United Nations Development Program, and The World Bank, January 2002), 53.
[24] "ICAO and Afghanistan Sign Agreement for Rebuilding of Kabul Airport," International Civil Aviation Organization News Release, 30 May 2002.
[25] ICAO News Release.

communications equipment for all major airports.[26] In light of these proposed costs and those in the previous section, it is evident that $70 million was an overly optimistic estimate to upgrade the aviation system. In fact, the budget request for civil aviation outlined in the 2008 Afghan National Development Strategy was $374 million with a gap in funding of an additional $247 million.[27] The overall figure does not include the costs of the institutional-reform programs or establishing the independent civil-aviation fund for sustainable maintenance.[28] The overall figure does include costs to implement fully the plan outlined in the last section, which illustrates that the initiatives in 2002 and 2004 were never completed in time, necessitating their inclusion in the 2008 ANDS.

Between fiscal years 2002 and 2009, the United States provided approximately $38.6 billion to support Afghanistan's security, stabilization, and development (not including US military operations).[29] Reconstruction efforts account for approximately $7.8 billion of this total amount.[30] These numbers illustrate that of the money the United States spent on non-military operations during this timeframe; nearly 20 percent was on reconstruction efforts. Although this dollar amount is large, the continual stating of the same aviation goals year after year combined with the lack of adequate funding illustrate that the aviation sector has not been given the priority it needs to help stimulate the Afghan economy, governance, and security. The progress made in rebuilding of the transportation infrastructure in general and the aviation infrastructure in particular illustrates this point.

Air Domain Development

Once the aviation infrastructure is complete, the Afghan security forces will need to be structured and equipped to secure the infrastructure as well as provide some aviation assets to aid the economic recovery. The division between the military and civilian aviation structure should be minimal until both systems are strong enough to

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[26] "Accelerating Infrastructure Development," Draft paper for discussion at the Afghanistan Development Forum 2005 (Kabul: Government of the Islamic Republic of Afghanistan, 2005), 16.
[27] *Transport and Civil Aviation Strategy*, 5.
[28] *Transport and Civil Aviation Strategy*, 5.
[29] US Government Accountability Office (GAO), *Afghanistan: Key Issues for Congressional Oversight,* Report to Congressional Committees, GAO-09-473SP (Washington, DC: Government Accountability Office, 2009), 3-4.
[30] GAO, *Afghanistan: Key Issues*, 4.

support themselves independently. Airpower is seen traditionally as performing combat or humanitarian roles, but with regard to many developing regions of the world, airpower should be thought of in terms of building aviation capacity—or air domain development (ADD).[31] The beneficial interaction and cooperation between a nation's civil- and military-aviation organizations is the basis of ADD.[32] This concept also aids in the governance and security challenges facing Afghanistan.

As discussed previously, the Afghan government finds itself hard-pressed to project a meaningful presence outside of Kabul, and the lack of a robust transportation infrastructure makes it difficult for the Afghan security forces to control the remote areas of the country. Domestic force projection strengthens the links between the citizenry and the government, especially if the people see the security forces as providing a service by protecting them from violence and by defending sovereign territory.[33] The use of an aviation infrastructure provides this capability. Aviation can help the government sustain a presence, exert control, and effectively counter any potential rebellion or criminal activity that might form beyond its traditional reach.[34] These capabilities will help to support economic development in those areas as well by providing a means to transport goods and services about the country.

The challenge is how to establish Air Domain Development despite a scarcity of resources. First, ADD gives states the mobility to access portions of the country despite an inadequate transportation infrastructure. Small- to medium-sized transport planes would enable Afghanistan to establish a presence in regions of the country that would otherwise remain difficult to access via ground vehicles. The particular aircraft selected would depend on the situation, but use of the right technology for the given environment is the most important consideration.[35] For Afghanistan, the most essential technology is transport aircraft.

Second, dual-use ADD would benefit both the civilian and military interests of the country, enhancing the overall safety and security of the air system. Air traffic

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[31] Major Jean-Philipp N. Peltier and Major Thomas Meer, "Air Domain Development in Africa," *Air and Space Power Journal* 23, no. 2 (Summer 2009): 111.
[32] Peltier and Meer, "Air Domain Development," 111.
[33] Peltier and Meer, "Air Domain Development," 112.
[34] Peltier and Meer, "Air Domain Development," 111.
[35] Peltier and Meer, "Air Domain Development," 112.

control, for instance, requires basic navigation aids and air routes that would enable both the safe movement of cargo and people as well as help the military secure the borders. Thus, the country could train pilots to fly transport planes across its territory, delivering both military and civilian cargo. The military's needs would take priority, but the military planes could transport other cargo and people when extra space became available. The efforts would help develop the urban-rural connections that are often missing in today's limited-capacity states. The development of these connections is especially important on those air routes that may not initially support a commercial carrier. Additionally, the state could project forces, have a tailored presence in remote areas, and respond quickly to threats, disasters, or other emergencies—civil or military.[36]

Third, ADD would help ensure proficiency training for military pilots. Many states simply lack the resources to provide sufficient flight time to their pilots, although some countries circumvent this dilemma by allowing their pilots to accumulate hours by flying aircraft in the national airline. In the context of resource scarcity, an ADD policy of cooperation between the civilian and military aviation organizations would drastically reduce the costs of maintaining pilot proficiency.[37] Government and private enterprise would share the costs for the transport services provided.

Finally, offering a service to the population as a whole would reflect favorably on the military, helping to promote security and stability for all citizens. The United States engages in similar activity with the Air Force's C-130 and C-17 aircraft. This fleet of aircraft gives the US government great opportunities to utilize advanced military cargo aircraft to supply medical and logistical support to relief efforts for humanitarian or natural disasters worldwide.[38] The scope of the use of military aircraft in Afghanistan needs to be for more than humanitarian needs though. To ensure all parts of the country are accessible, the government should use the aircraft to help augment commercial carriers. This effort will demonstrate that the full resources of the government are employed to rebuild the economic infrastructure of Afghanistan.

As with any endeavor, there will be obstacles such as the lack of funding, internal conflict, and a dearth of technical expertise to operate an air-traffic-control system due to

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[36] Peltier and Meer, "Air Domain Development," 112.
[37] Peltier and Meer, "Air Domain Development," 112.
[38] Peltier and Meer, "Air Domain Development," 112-3.

prolonged lack of an effective structure. Despite these hindrances, there are many potential benefits. Some include greater government access to remote areas, the nurturing of vital links between urban and rural regions, government oversight of outlying regions, regular use and maintenance of aircraft, increased aviation training and proficiency, revenue generation through landing fees, increased economic and trade opportunities, stronger civil-military ties, and professionalization of the military through regularized training and operations.[39]

Equipping an Afghan Air Force

Afghanistan's unforgiving terrain and dearth of sufficient highway and rail transportation make the ability to move personnel and cargo via air critical. Current and near-future aircraft acquisitions are for aircraft primarily of Soviet origin, owing to Afghan pilots' familiarity with them, but the intent is to move away from such aircraft in future planning. The United States Combined Air Power Transition Force (CAPTF), part of the Combined Security Transition Command-Afghanistan (CSTC-A), trains and mentors the ANAAC. The training involves all aspects required to sustain an air force—from training pilots and maintenance personnel to tower and security personnel. CAPTF officials note that ANAAC development is proceeding in stages, based on agreements with the Afghan National Security Forces leadership, with an initial emphasis on contributing to the counterinsurgency fight through air mobility. Between 2011 and 2015, the plan is for the ANAAC to begin acquiring limited attack and intelligence, surveillance, and reconnaissance capabilities. Sometime thereafter CAPTF officials note, the ANAAC may begin to build a capability for external defense, including air interdiction. This timeline reportedly sits uneasily with some Afghan fighter pilots who are eager to rebuild the air force they once knew. Despite this uneasiness, the rebuilding continues.[40]

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[39] Peltier and Meer, "Air Domain Development," 114.

[40] Catherine Dale, *War in Afghanistan: Strategy, Military Operations, and Issues for Congress,* CRS Report for Congress, R40156 (Washington, DC: Congressional Research Service, 2009), 38-9 and Special Inspector General for Afghanistan Reconstruction (SIGAR), *Quarterly Report to the United States Congress* (Arlington, VA: Special Inspector General for Afghanistan Reconstruction, Jan 2010), 64.

As of October 2009, NATO reported the ANAAC had 187 pilots, 29 rotary-wing aircraft, and 10 fixed-wing aircraft.[41] The types of rotary-wing aircraft include 20 Mi-17 and nine Mi-35 helicopters.[42] The types of fixed-wing aircraft include five AN-32, one AN-26, and two C-27 transport aircraft and two L-39 jet trainer aircraft.[43] As of December 2009, the inventory should have increased by three Mi-17s and four C-27s.[44] The ANAAC's capacity will grow until 2016, when it should reach full operational capability with 7,000 personnel and 129 rotary- and fixed-wing aircraft.[45] Current plans include the delivery of 20 C-27s, which will serve as the ANAAC's primary fixed-wing aircraft and will expand airlift and air-delivery capabilities for the Afghan National Security Forces.[46]

The continuation of training of personnel by the US-led CAPTF is important to sustaining the aviation plan for the near future. Until there is a capability to increase and sustain civilian pilot production, the ANAAC will need to provide trained pilots for the Air Domain Development plan. This may necessitate expanding the capacity of the training program by the CAPTF. While this will increase the cost of the plan, augmenting the current structure makes more sense than creating an entirely new training program.

The ANAAC demonstrated its value on 16 Jun 2008 during an operation aimed at retaking the Arghandab District of Kandahar province from insurgent control. The ANAAC was able to move 910 soldiers and over 27,000 pounds of cargo from Kabul to Kandahar within less than 24 hours. The forces and cargo were subsequently flown back by 22 June 2008. Since that time, the ANAAC has carried out a number of other missions as part of ISAF's intra-theater airlift system, which moves personnel and cargo across Afghanistan. Thanks to US-led training and investment, the ANAAC flew 90 percent of Afghan National Army air support missions in 2009 compared to 10 percent in

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[41] SIGAR, *Quarterly Report,* 64.
[42] SIGAR, *Quarterly Report,* 64.
[43] SIGAR, *Quarterly Report,* 64.
[44] US Department of Defense (DOD), *Progress Toward Security and Stability in Afghanistan,* Report to Congress (Washington, DC: Department of Defense, June 2009), 32.
[45] North Atlantic Treaty Organization (NATO) Public Diplomacy Division, *Afghanistan Report 2009* (Brussels: North Atlantic Treaty Organization, 2009), 15.
[46] SIGAR, *Quarterly Report,* 64.

early 2008. Every month, the ANAAC moves more than 5,000 passengers and more than 88,000 pounds of cargo.[47]

Progress

Overall, the Afghan government's spending priorities are in line with the Afghan National Development Strategy, but donor financing is not in line appropriately with the Afghan government priorities.[48] In terms of the transportation infrastructure, the ring road has been the priority, and road reconstruction in general has attracted considerable donor assistance.[49] Other areas of reconstruction have not seen the level of support from either the Afghan government or international donors.[50]

For example, the budget requests identified in the ANDS show a 21.3 percent funding deficit for regional highways and a 36.8 percent deficit for national and provincial roads. While they may seem like large deficits, compared to the 89 percent deficit for urban roads, the 68.7 percent deficit for civil aviation, and the 100 percent deficit for a railroad feasibility study, they are small. Overall, the largest total dollar amount requested was for regional and national roads, and the deficit in the total transportation related budget request was 53 percent.[51] Other countries have funded projects in the transportation system prior to the ANDS.

As of January 2007, the United States and more than 10 other donors provided or promised about $5.2 billion for transportation infrastructure projects. Nearly $4 billion of this is for 366 projects already completed, including most of the ring road. The portion of the ring road from Kabul to Kandahar was a signature project for the US Agency for International Development and opened in December 2003 to much fanfare. This section of the ring road reduced travel time between Kabul and Kandahar from several days to six hours.[52] Construction on other portions of the ring road continues.

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[47] SIGAR, *Quarterly Report,* 64 and NATO, *Afghanistan Report*, 15.
[48] Government Coordination Committee of the Islamic Republic of Afghanistan, *Afghanistan National Development Strategy First Annual Report 1387, Part I* (Kabul: Government of the Islamic Republic of Afghanistan, 2009), 6.
[49] US Government Accountability Office (GAO), *Securing, Stabilizing, and Reconstructing Afghanistan: Key Issues for Congressional Oversight*, Report to Congressional Committees, GAO-07-801SP (Washington, DC: Government Accountability Office, 2007), 30.
[50] *Transport and Civil Aviation Strategy*, 5.
[51] For the raw budget numbers, see *Transport and Civil Aviation Strategy*, 5
[52] GAO, *Securing*, 30.

According to a US Department of Defense Report on Afghan Stability, the ring road was 33 percent complete in January 2009.[53] The June 2009 DOD report specified that the ring road was 78 percent complete and that more than 90 percent will be complete by early 2011.[54] As of 30 September 2009, approximately 86.4 percent of the ring road is complete.[55] The ring road data appears promising, but the apparent drastic increase in the reconstruction rate illustrates the wide disparity in the data available for transportation infrastructure projects. While the reconstruction of the ring road appears to be progressing, there is no progress reported on the development of a fiscally sustainable road-maintenance system.[56] A number of roads are currently under maintenance funded by donors.[57] Until there is a sustainable plan in place for long-term maintenance, the benefits of the ring road may be temporary.

Construction of the ring road has had significant impact on the time and cost of travel in Afghanistan. By some estimates, the ring road has reduced travel time by six or seven times in some areas. Additionally, new roads have led to an increase in commerce associated with road travel, including gas stations. Roads have also opened lines of communication among districts, provinces, and the national government, thereby improving local governance. A lack of consistency in transit taxing among provinces and a lack of security, however, have diminished the potential benefits of the highway.[58]

In the aviation sector, progress is occurring, but it is slow. At Kabul International Airport, the construction of a new terminal and the rehabilitation of the Transport and Civil Aviation Ministry building are complete. At the Herat Airport, the runway and 50 percent of a new terminal are complete. Rehabilitation of the three regional airports of Mazar-i-Sharif, Jalalabad, and Kandahar is complete. Of the seven other airports identified for rehabilitation by the Afghan government, one is 80 percent complete, one is 60 percent complete, and the other five have not been started as of the date of the report.

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[53] Katzman, Kenneth, *Afghanistan Post-Taliban: Governance, Security, and U.S. Policy*, CRS Report for Congress, RL30588 (Washington, DC: Congressional Research Service, 2009), 56.
[54] DOD, *Progress*, 8.
[55] As reported by the US Agency for International Development in SIGAR, *Quarterly Report,* 101.
[56] Government Coordination Committee, *ANDS First Annual Report, Part I*, 35.
[57] Government Coordination Committee, *ANDS First Annual Report, Part I*, 35.
[58] DOD, *Progress*, 9 and 54 and US Government Accountability Office (GAO), *Afghanistan Reconstruction: Progress Made in Constructing Roads, but Assessments for Determining Impact and a Sustainable Maintenance Program Are Needed*, Report to Congressional Committees, GAO-08-689 (Washington, DC: Government Accountability Office, 2008), 26.

As far as personnel training, the Ministry of Transportation and Civil Aviation has contracted with ICAO to train its technical staff and has sent 146 civil aviation staff for training in the United States, Germany, India, Singapore, Iran, and other Arab countries.[59]

Direct foreign assistance for aviation infrastructure has been substantial, but not necessarily systemic. At Kabul International Airport, the US Federal Aviation Administration is purchasing airport-security equipment and funding security staff, installing an approach-control surveillance system, training Afghan air traffic controllers and maintenance technicians, and refurbishing the air traffic control tower.[60] India has trained flight staff and contributed three Airbus aircraft.[61] The United Arab Emirates signed an agreement with the Afghan government to assist in security at airports, starting with Kabul and Kandahar.[62] Additionally, most of the rehabilitation of the air infrastructure, especially outside of the Kabul area, has been a result of NATO military forces' efforts and investment.[63] Foreign military users of Afghanistan airfields have contributed millions of dollars in infrastructure repair and currently provide critical technical support to future development including civil-aviation-related work at other airfields.[64]

While the infrastructure is the most important part of the system, the progress of commercial companies willing to utilize the facilities is also important. In 2008, 15 companies submitted applications to the Ministry of Transportation and Civil Aviation for commercial-aviation licenses. Three companies initially received licenses (all Afghan). As of mid-2009, four private and semi-private Afghan airlines and three international airlines were operating in Afghanistan. Two additional airlines have licenses but were not operating as of mid-2009.[65]

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[59]Government Coordination Committee of the Islamic Republic of Afghanistan, *Afghanistan National Development Strategy First Annual Report 1387, Part II* (Kabul: Government of the Islamic Republic of Afghanistan, 2009), 76.

[60] Islamic Republic of Afghanistan Ministry of Transportation and Civil Aviation, *Ministry of Transportation and Civil Aviation Strategy* (Kabul: Government of the Islamic Republic of Afghanistan, 2007), 7. (Referenced as: MoTCA, *Strategy*)

[61] Library of Congress – Federal Research Division, "Country Profile: Afghanistan," Library of Congress, http://lcweb2.loc.gov/frd/cs/profiles/Afghanistan.pdf (accessed 18 November 2009), 15.

[62] DOD, *Progress*, 54.

[63] MoTCA, *Strategy*, 4.

[64] MoTCA, *Strategy*, 4.

[65] For 2008 numbers, see *Transport and Civil Aviation Strategy*, 17; for 2009 numbers, see Government Coordination Committee, *ANDS First Annual Report, Part II*, 76.

Summary

The overall goal of this "recovery-through-aviation" plan is to make Afghanistan an air-faring nation. The first area of emphasis is to rebuild the aviation infrastructure to aid short- and mid-term economic recovery. The second emphasis area is to provide the national government a secure means of movement around the country to aid in effective governance. Aviation plays a large part in the recovery plan for Afghanistan because the road system does not reach remote areas of the country, security along the road structure is difficult to maintain, and weather makes some roads impassable in winter. Aviation will also provide a source of funding for the government through tax revenues.

The Afghan National Development Strategy includes aviation reconstruction in the overall development plan, but it is not a priority compared to the road infrastructure. The Afghan government's air transport goals include full ICAO compliance for Kabul International and Herat Airports, upgrading three regional and seven other domestic airports, and providing competitive air transport services. These aviation reconstruction efforts focus on boosting economic growth and providing a vital communications line to Kabul. The priorities of these projects, however, have not been as high as other infrastructure projects, so the allocation of funds is not enough to meet needs.

The initial estimate of $70 million to accomplish the aviation reconstruction efforts was overly optimistic. The more recent estimates from the ANDS requested $374 million with $247 million of that amount being a shortfall in the budget. No explanation for the shortfall is included in the ANDS budget request. The US government has provided $7.8 billion in reconstruction funds between fiscal year 2002 and 2009. Despite the large monetary resources provided by the United States and other nations, aviation reconstruction continues to lag behind road reconstruction. While an expansive nation-wide road network should be the end goal of the Afghan government, it is not feasible in the current economic and security environments. Aviation provides the ability to move cargo and people around the country quickly with less dramatic security requirements.

The US government has spent a large amount of money on reconstruction efforts in Afghanistan with little to show for its investment. The focus has been on traditional methods of transport instead of attempting to jump-start the economy through alternate methods such as aviation that require less money and time to implement. The total cost

in the Afghan reconstruction plan for the aviation infrastructure is $631 million. Even if this cost doubled to $1.3 billion due to inflation and/or the expansion of the proposal, that amount is less than six weeks of operating costs, $1.5 billion, for the additional 30,000 troops in the current US strategy. To illustrate the costs another way, the costs of just 4,000 of those additional troops is $1.56 billion annually. This amount is more than enough to fund reconstruction of aviation infrastructure. After building the aviation infrastructure, the Afghan government will need to provide security and support for the aviation sector.

The Afghan National Security Forces should include the capability to secure the national aviation infrastructure and provide assets to move personnel and cargo in support of rebuilding efforts. Airpower is a means of building aviation capacity instead of acting strictly in an offensive or defensive role. Air Domain Development will enable government presence in ungoverned spaces. ADD will also help support the aviation infrastructure needed to jump-start economic recovery in Afghanistan. The dual use of military aviation assets is the key step in the ADD process. This concept allows the government to support fully the economic rebuilding of the country by ensuring access to remote areas as well as access to numerous markets.

The Afghan National Army Air Corps is progressing in its development to support the mobility needs of security forces. The next step is for the Afghan government to implement aspects of ADD that aid national economic recovery while also increasing the proficiency of the air arm of the security forces.

Conclusion

For once you have tasted flight you will walk the earth with your eyes turned skywards, for there you have been and there you will long to return.

-- Leonardo da Vinci

The United States has been fighting in Afghanistan since late 2001. The level of unrest has varied over the years, but violence continues to increase. With additional violence comes an increase in the number of troops and costs. Could this money be used more effectively? The answer is yes, through building an aviation infrastructure that jump-starts the economic growth of the country and links together the different tribal areas into one nation. This plan for a long-term solution is more important than securing hot spots in time for the next election.

A key part of post-conflict reconstruction and nation-building in general is ensuring effective lines of communication. In order to provide security, governance, commerce, justice, and social development, a nation requires the ability to move information, goods, services, and people around the country. Without this capability, reconstruction may be possible only in localized parts of the country. Unless the benefits of progress in one area can be shared with the other parts of the country, it will be difficult for the overall nation-building effort to be successful.

There are myriad descriptions of what constitutes nation-building. The varied terminology serves to highlight a particular author's view of important concepts. Whether the concept is identified as nation-building, peace-building, stability-operations, or reconstruction and development, the goal is the same—a viable nation that is stable and productive in the world arena. Numerous challenges face the individual country and the international community in a successful nation-building effort. The players must address these challenges to help ensure success in the effort.

A very important part of nation-building is post-conflict economic reconstruction. An effective economy depends not only on a legal system and governance but also on an infrastructure that can effectively transport goods, services, and people throughout the country. A closer look at Afghanistan reveals the focus needed on reconstruction of

transportation infrastructure and how aviation can play a large role in the effort of rebuilding the country as a whole and the economy in particular.

The overall goal of the recovery-through-aviation plan is to make Afghanistan an air-faring nation. This strategy focuses on three capabilities: security, governance, and economic growth.

The lack of a suitable road, rail, and air infrastructure in Afghanistan makes it very difficult to conduct business outside of localized areas, and this limitation has had a great impact on the society. Afghanistan is the fifth poorest country in the world; the population faces a grossly inadequate potable water supply, soil degradation, massive deforestation, and severe overgrazing of the limited arable land in the country. Because of these and other factors, Afghanistan has rudimentary or non-existent basic services and functions as though it were still the 14th Century. Finding a way to bring the society to modernity is a very challenging proposition. Transportation may be the battery to jump-start modernization.

Historically transportation in a country progresses using the sea, then roads, then railroads, and then the air. Developing new infrastructures is a very expensive and time-consuming undertaking, especially for small, poor countries. In the case of Afghanistan, it might be better to bypass the progression from sea to road to rail to air. No navigable internal waterways exist, and the mountainous terrain makes roads and rail lines both difficult and expensive to build. Traditional surface lines of communication are also more vulnerable to terrorist disruption than air hubs, and the Afghan air is as navigable as that of any other country.

An air transportation system will facilitate reconstruction while stabilizing internal security. Securing an airport and the associated infrastructure is an easier challenge than attempting to secure and entire road or rail network. Air transportation overflies many danger zones. Additionally, aviation offers a way to strengthen regional ties more quickly than waiting for the road network to be constructed. These regional ties will give the national government a more effective voice across the entire country instead of relying on the regional and local structures for governance. The ability to move security forces to all areas of the country will benefit law enforcement and stability.

The government of Afghanistan and those countries that are aiding its development can favor the *natural* growth of capabilities in a sequential manner, or they can propel the country forward by utilizing advanced capabilities. The air would expand the reach of Afghan society at a quicker pace and a lower overall cost than the sequential development experienced by most countries. While the movement to expand the air infrastructure may not permanently bypass expansion in the other transportation areas, this bypass will aid Afghanistan for the short- to medium-term.

While the Afghan National Development Strategy includes aviation reconstruction in the overall development plan, it is not a priority compared to the road infrastructure. The current timeline for aviation reconstruction, as outlined in the Afghanistan Compact and the ANDS, cannot be met due to weak capacity, insufficient institutional organization, and a lack of financial resources. These limitations exist not because achievements are not possible, but because they have not received the necessary priority compared to other aspects of the development plan. Concentration on rebuilding the road system instead of looking at alternate and more efficient means of transportation is to blame.

The initial estimate of $70 million to accomplish the aviation reconstruction efforts was overly optimistic. The more recent estimates from the ANDS requested $374 million with $247 million of that amount being a shortfall in the budget. The US government has provided $7.8 billion in reconstruction funds between fiscal year 2002 and 2009. Despite the large monetary resources provided by the United States and other nations, aviation reconstruction continues to lag behind road reconstruction. While an expansive nation-wide road network should be the end goal of the Afghan government, it is not feasible in the current economic and security environment. Aviation demands less security and, when coupled with the unique geography and impoverished surface infrastructure of Afghanistan, becomes for now, the most efficient line of communication.

As of November 2009, the US had 68,000 personnel supporting both Operation Enduring Freedom and the NATO-led ISAF. The additional 30,000 US personnel President Obama authorized started deploying in January 2010. They will cost approximately $11.7 billion annually. While nothing can be done to fix the lack of

significant progress generated by the amount of money spent on US efforts in Afghanistan so far, something needs to be done to ensure the money spent is effective. Even if the estimated cost of rebuilding the aviation infrastructure doubled to $1.3 billion due to inflation and/or the expansion of the proposal, that amount is less than six weeks of operating costs, $1.5 billion, for the additional 30,000 troops in the current US strategy. To illustrate the costs another way, the costs of just 4,000 of those additional troops is $1.56 billion annually. This amount is more than enough to fund reconstruction of aviation infrastructure.

In addition to an aviation infrastructure, the Afghan National Security Forces need to be able to provide assets to move personnel and cargo in support of rebuilding efforts. The Afghan National Army Air Corps is progressing in its development to support the mobility needs of security forces. The next step is for the Afghan government to implement aspects of Air Domain Development that allows dual use of military aviation resources to help rebuilding efforts. These efforts will aid national economic recovery while also increasing the proficiency of the air arm of the security forces. ADD will enable government presence in ungoverned spaces and will help support the aviation infrastructure needed to jump-start economic recovery in Afghanistan. This concept allows the government to support fully the economic rebuilding of the country by ensuring access to remote areas as well as access to numerous markets.

The present status of Afghanistan illustrates the importance of the transportation infrastructure to help bring the country together physically, politically, and economically if it is to move forward. The geography of Afghanistan and the lack of a significant road or rail network mean that Afghanistan is uniquely poised to take advantage of the air. Thirty years of war and destruction deflated the prospects of stability in Afghanistan, but the air above the country can re-inflate those hopes.

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